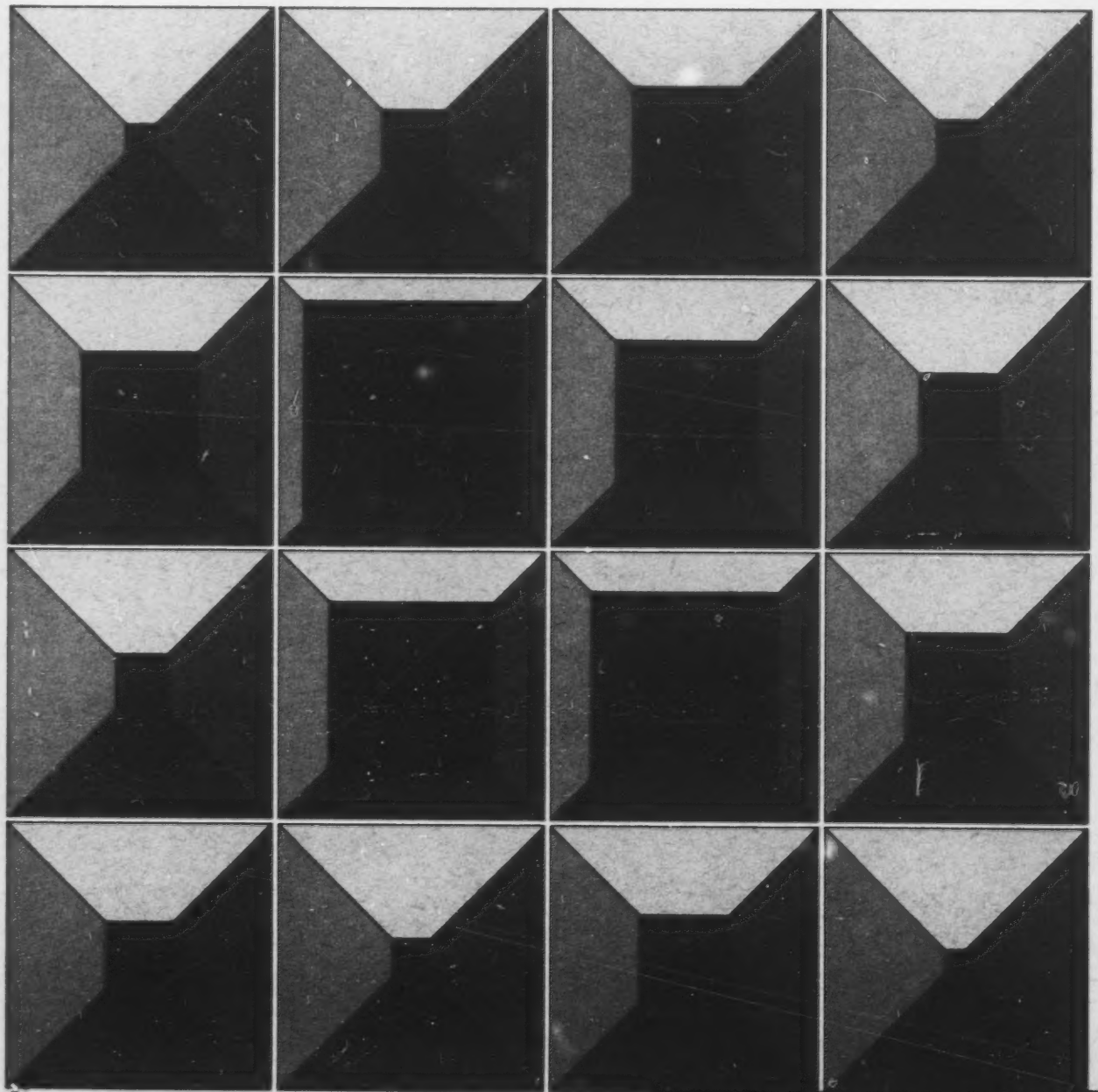
A CBO STUDY

Rapid Deployment Forces: Policy and Budgetary Implications

February 1983

Congress of the United States
Congressional Budget Office



T932-7
BEST AVAILABLE COPY

RAPID DEPLOYMENT FORCES:

POLICY AND BUDGETARY IMPLICATIONS

Congress of the United States
Congressional Budget Office

NOTES

Unless otherwise indicated, all years referred to in this paper are fiscal years. Likewise, unless otherwise noted, all dollar amounts are expressed in fiscal year 1984 dollars.

Program detail for fiscal year 1984 of the Administration's budget was the only data available at the time of publication. Where possible, costs presented in this paper were updated to reflect the latest program revisions. Where no specific data beyond 1984 were provided, cost estimates were based on program detail submitted with last year's budget, amended only for changes in inflation.

PREFACE

The planned growth of U.S. Rapid Deployment Forces (RDF), which may nearly double in size in the coming few years, raises important policy and budgetary issues for Congressional consideration. This growth in forces earmarked for the RDF is being accomplished not by adding combat forces but by changing the primary mission of existing forces, most of which are already committed to the defense of NATO Europe. Though the United States has persistently urged its NATO allies to accept some of the defensive burden resulting from RDF plans, the Congress may wish to consider the extent to which U.S. policy is shifting its focus and the potential budgetary costs of sustaining current U.S. commitments to NATO and Southwest Asia.

Prepared at the request of the Subcommittee on Sea Power and Force Projection of the Senate Committee on Armed Services and the Joint Economic Committee, this study analyzes the policy implications of alternative RDF levels and the budgetary implications of the policy decisions. In keeping with CBO's mandate to provide objective analysis, this paper offers no recommendations.

John D. Mayer Jr. of CBO's National Security and International Affairs Division prepared the study under the general supervision of Robert F. Hale and John J. Hamre. Cost estimates were provided by Bill Myers and Joel Slackman of CBO. The author gratefully acknowledges the contributions of T. Keith Glennan III, Kathleen O'Connell, V. Lane Pierrot, and Nora Slatkin of CBO and of Donald N. Fredricksen of Systems Planning Corporation. (The assistance of external participants implies no responsibility for the final product, which rests solely with CBO.) Johanna Zacharias edited the manuscript.

Alice M. Rivlin
Director

February 1983

CONTENTS

		Page
PREFACE		ii
SUMMARY		xiii
CHAPTER I.	INTRODUCTION AND BACKGROUND	1
	Principal Issues and Plan of the Study	1
	Background on the RDF	3
	The Sizes, Missions, and Budgetary Costs of Three Possible RDFs	5
	Policy Implications	8
CHAPTER II.	COMBAT REQUIREMENTS FOR ALTERNATIVE RDF FORCE SIZES	11
	The Larger RDF Planned by the Administration	11
	The Current RDF	15
	The Smaller RDF	17
	Other Considerations in Designing an RDF	18
CHAPTER III.	THE EFFECTS OF AN RDF MOBILIZATION ON THE U.S. COMMITMENT TO NATO	19
	The Balance of Forces in NATO and the U.S. Commitment	19
	RDF Force Levels and the Combat Capabilities of NATO	23

CONTENTS (Continued)

		Page
CHAPTER IV.	MEETING THE MOBILITY NEEDS OF THE RDF--POTENTIAL COSTS AND SAVINGS	29
	Today's Mobility Forces and the Proposed Improvements	29
	Mobility for the RDF	39
CHAPTER V.	SUPPORT NEEDS OF THE RDF	45
	Army Support Requirements	45
	The Support Personnel Available to the RDF Today	47
	Shortfalls in Support and Costs of Meeting Them	49
APPENDIX A.	COSTING THE RAPID DEPLOYMENT FORCES	55
APPENDIX B.	AMPHIBIOUS LIFT	57
APPENDIX C.	FACILITIES AND MILITARY CONSTRUCTION IN SOUTHWEST ASIA	59

TABLES

		Page
TABLE 1.	U.S. FORCE COMMITMENTS TO THE CURRENT RDF, BY SERVICE	2
TABLE 2.	PROJECTED CUMULATIVE BUDGET AUTHORITY INCREASES AND SAVINGS (-) FOR RDFs OF THREE SIZES, RELATIVE TO ADMINISTRATION PLAN	7
TABLE 3.	FORCE COMPOSITION OF THREE POSSIBLE RDFs, BY SERVICE	12
TABLE 4.	PROJECTED CHANGES TO MOBILITY PROGRAM FOR THREE RDF FORCE LEVELS	40
TABLE 5.	ARMY SUPPORT PERSONNEL REQUIREMENTS, CAPABILITIES, AND SHORTFALLS FOR THREE RDFs	47
TABLE 6.	PROJECTED RDF SUPPORT COST REQUIREMENTS BY SIZE OF RDF, 1984-1988	51

16-284 O - 83 - 2

FIGURES

		Page
FIGURE 1.	AREA OF CONCERN FOR U.S. RAPID DEPLOYMENT FORCES IN SOUTHWEST ASIA	10
FIGURE 2.	SHIFTING WARSAW PACT/NATO FORCE BALANCE: 90 DAYS FOLLOWING PACT MOBILIZATION.	22
FIGURE 3.	EFFECTS OF RDF SIZE ON WARSAW PACT/NATO FORCE BALANCE: 90 DAYS FOLLOWING PACT MOBILIZATION.	23
FIGURE 4.	TOTAL CURRENT MOBILITY CAPACITY FOR THE RDF OVER TIME.	31
FIGURE 5.	TOTAL PROJECTED AIRLIFT CAPACITY FOR THE RDF OVER TIME.	33
FIGURE 6.	PROJECTED TOTAL MOBILITY CAPACITY FOR THE RDF, INCLUDING PLANNED UPGRADES AND EXPANSIONS	41

INTENTIONAL
BLANK

SUMMARY

When plans for the Rapid Deployment Forces (RDF) were announced in 1979, no new combat forces were created for them. (For simplicity, the RDF is referred to here as a single unit.) Rather, the RDF was envisioned to consist of existing forces--portions of all four U.S. armed services--most of which already had the traditional mission of assisting in the defense of NATO Europe. The size of the RDF can therefore have important implications for the U.S. policy with respect to NATO.

As the RDF is constituted today, it comprises 222,000 troops. The Administration plans to increase the size of the RDF, perhaps doubling that number. At the same time, though, no plan for an overall increase in U.S. combat forces has been advanced. Thus, the Administration's planned larger RDF could have further effects on U.S. policy for NATO.

Moreover, the RDF could affect the U.S. defense budget. Only $737 million has been earmarked directly for the RDF for fiscal year 1983. But the RDF, and particularly the plans for a larger version, could give rise to pressure for eventual increases in the defense budget and could hamper efforts to reduce the budget deficit in the next few years. Thus the Congress' decision about the appropriate size of the RDF has important implications for the budget as well as for NATO policy.

To assist in deliberations about the appropriate size of the RDF, the Congressional Budget Office (CBO) has examined several aspects of three possible RDFs--one manned at the Administration's higher level, assumed to include 440,000 troops, one manned at the current 222,000-troop level, and one reduced to 165,000 troops. The analysis first considers the missions appropriate to the different sizes. Then, for each version of RDF, the analysis considers the implications for NATO versus Warsaw Pact force ratios in Europe, and the RDF's combat, mobility, and support needs. To the extent that each of these factors has budgetary implications, the potential costs or savings are also examined.

DIFFERENT MISSIONS FOR DIFFERENT RDF FORCE LEVELS

Since the RDF was originated, it has undergone major redefinitions of purpose. Conceived as a fast-reaction force with global orientation, the RDF quickly became focused on the Persian Gulf region. At present, the

RDF's primary function would be to safeguard U.S. interests in Southwest Asia and deter Soviet aggression in the region. A series of upheavals has given urgency to this RDF mission--most recently, the Soviet invasion of Afghanistan, which could be construed as evidence of a Soviet intent to strengthen a position in Southwest Asia.

The most demanding threat in Southwest Asia, a major Soviet invasion of Iran has motivated the size and configuration of the larger RDF. Within close proximity of Iran, the Soviets have available 24 combat divisions. Though few are now combat ready, full readiness could probably be achieved within several weeks. In addition, the Soviets' airborne divisions could be deployed to strategic locations inside Iran. The Administration therefore believes that the larger RDF is needed not only as a deterrent but also possibly to counter an invasion by these Soviet forces in Iran.

On the other hand, the Administration has stated that the Soviets would more likely engage in encouraging subversion and internal upheavals, rather than undertake a difficult and risky invasion of Iran. Averting such disruptions would not require so large a force as the Administration plans. The combat units of the current RDF (see Summary Table 1) could provide effective military support to any politically moderate state. The current RDF would offer roughly the same early combat capability as the larger RDF, and though it might be unable to defeat a determined Soviet drive toward the Persian Gulf, it would still present a significant deterrent.

Rather than the larger or even the current RDF, history suggests that the far likelier need would be for a small U.S. force that could be dispatched quickly to areas of potential conflict before actual fighting erupts. A peacekeeping mission such as that now being performed by U.S. Marines in Lebanon is one example. An RDF with these more modest responsibilities might consist of approximately 165,000 persons. But a force this small might be of little value in deterring a Soviet invasion of Iran, and of still less use in actual combat with Soviet forces.

EFFECTS OF RDF SIZE ON U.S. COMMITMENT TO NATO

Deployment of the RDF could present a risk to NATO's defense if war were to erupt simultaneously (or nearly so) in Southwest Asia and in Europe. Only the addition of new U.S. forces--a course that has been discussed but not formulated--would obviate that risk, but at costs that would be determined by the size of RDF chosen (see Summary Table 2).

SUMMARY TABLE 1. COMPOSITION OF THREE RAPID DEPLOYMENT FORCE LEVELS

Forces	Larger RDF	Current RDF	Smaller RDF
Army Combat Divisions a/	5	3 1/3	1
Navy			
Aircraft Carrier Battle Groups b/	3	3	3
Amphibious Ready Group c/	1	1	1
Air Force Tactical Fighter Wings d/	10	7	5
Marine Corps			
Marine Amphibious Forces e/	2	1 1/3	1
Total Personnel	440,000	222,000	165,000

SOURCE: U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1984, press reports, and the Congressional Budget Office.

a. Each would consist of 16,000 to 18,000 soldiers.

b. Each would consist of one aircraft carrier plus six surface escort ships.

c. Typically consists of three to five amphibious ships including an amphibious assault ship.

d. Each would consist of approximately 72 aircraft.

e. Each would consist of a ground combat division, a tactical fighter wing, and sustaining support, totaling approximately 45,000 people.

SUMMARY TABLE 2. PROJECTED CUMULATIVE BUDGET AUTHORITY INCREASES AND SAVINGS (-) FOR RDFs OF THREE SIZES, RELATIVE TO ADMINISTRATION PLAN (1984-1988, in billions of 1984 dollars)

Cost Components	RDF of 440,000		RDF of 222,000		RDF of 165,000
	No Added Forces a/	Added Forces	No Added Forces	Added Forces	
Added Army Combat Forces	0	37.8 b/	0	18.9	0
Mobility Forces	0	5.8	0	0	-11.0
Support Forces c/	0	1.3	0	1.2	0
Total	0	44.9	0	20.1	-11.0

SOURCE: Congressional Budget Office, from data provided by the Department of Defense.

a. Administration plan.

b. Added tactical air wings may also be needed but are not included in these costs. Costs over five years would equal at least $3 billion per added wing.

c. Includes persons to meet support shortfalls plus those needed to recruit and train added personnel.

The Larger RDF

If the larger RDF were drawn to Southwest Asia and conflict also broke out in Europe, the United States would be unable to sustain its current level of commitment to NATO. The United States could still deploy the initial six reinforcing divisions it holds in reserve on U.S. bases within ten days of a NATO mobilization, but it could do no more within the first 60 days unless RDF divisions were able to redeploy to Europe. From NATO's perspective, this would represent a decrease of up to 33 percent in

the number of U.S. combat divisions. By the end of the second month of a conventional war in Europe, the balance of NATO versus Warsaw Pact forces in Europe would be weakened by as much as 12 percent.

The Administration hopes that the NATO allies will offset this shortfall by increasing their own defense efforts. This would give the United States latitude to respond to sizable conflicts elsewhere without reducing NATO capabilities. To date, however, such responses on the part of our European allies have not been forthcoming, perhaps because of economic constraints.

Moreover, some military analysts feel that the current balance of forces in Europe is already disadvantageous to NATO, even without a loss of forces to an RDF engagement. Thus, pressure to increase the Army's force structure could be forthcoming; the goal would be to allow concurrent reinforcement of NATO and deployment of the larger RDF. The Department of Defense does not plan now to increase Army combat structure in the future, nor does it plan to propose spending levels higher than those already set. But it has not ruled out Army increases, and in fact, has indicated that it may eventually wish to provide some additional forces. Four more fully supported Army divisions, at a cumulative five-year cost of approximately $37.8 billion, would be needed to allow the United States to maintain NATO's stance in the current force balance while simultaneously deploying the larger RDF. Added Naval and Air Force units might also be needed; some buildup of those forces is, however, already under way.

The Current RDF

Limiting the size of the RDF to its current level would still pose some increased risk to NATO, but a lesser one. The number of U.S. combat divisions available during the first 60 days could decrease by as much as 20 percent, while NATO's position in the force balance would diminish by as much as 6 percent. Simultaneous maintenance of the current commitment would require increases of two fully supported combat divisions at a five-year cost of about $18.9 billion.

The Smaller RDF

Only if the size of the RDF were appreciably reduced could the current commitment to NATO be sustained, should the RDF be activated. Thus, only the choice of the smaller RDF could avoid any future pressure for more U.S. combat forces.

16-284 O - 83 - 3

RDF MOBILITY AND SUPPORT REQUIREMENTS, AND PLANNED IMPROVEMENTS

Two aspects of the RDF could have clear budgetary implications: the mobility assets that would be needed to move combat forces to a theater of combat 12,000 miles from the continental United States, and the logistic infrastructure that would be needed to support combat forces.

RDF Mobility Needs and the Planned Improvements

Timing would be a critical factor in the effectiveness of any RDF deployment. Mobility assets, in turn, are the critical determinant of timing. In 1980, a 30-day span was considered the time goal for deployment of a large force to the Persian Gulf. CBO's analysis uses this same 30-day criterion.

Mobility assets fall into three categories: airlift, sealift, and "prepositioning" (that is, materiel stored in or near possible theaters of combat). The Administration has under way a major program to increase mobility forces in all three categories. The airlift component of this program includes improvements in the so-called "utilization rates" of certain aircraft, and purchase of an additional 50 C-5 cargo and 56 KC-10 tanker/cargo aircraft. (The Air Force already has 77 C-5 and 16 KC-10 aircraft.) The programmed sealift expansions include eight new fast logistic ships that can haul heavy Army equipment at speeds up to 33 knots, and leasing 13 more prepositioning ships to carry the equipment for three Marine amphibious brigades. (The Navy now has 18 prepositioning ships dedicated for the RDF.) The total five-year acquisition cost of this program is approximately $13.7 billion; funds for this program are included in currently planned increases in defense budget authority.

In combination, the mobility forces already available and the improvements planned would allow the current version of the RDF to deploy all of its integral, or "unit," equipment to Southwest Asia within 30 days. Thus, under this study's criterion, the current RDF should require no additional mobility improvements beyond the completion of those planned.

Even with the mobility improvements scheduled, however, the larger RDF that the Administration now plans would require more than 40 days to deploy its unit equipment. Deployment by the 30th day instead would require procurement of eight additional fast logistics ships and the leasing of ten more prepositioning ships; the United States would also have to buy additional equipment to be prepositioned aboard these vessels. Over five years, the initial costs of these assets would total about $5.8 billion.

With current mobility forces and the planned improvements, all of the smaller RDF could reach the Persian Gulf in about 21 days. Thus, some of the additional forces planned by the Administration might not be needed, inasmuch as the 30-day criterion would be surpassed. Therefore, were the 165,000-man RDF selected, the Congress could terminate a number of planned purchases--for example, development and production of the C-17 aircraft and further buys of C-5 aircraft. These terminations would save approximately $11 billion over a five-year period. Such cancellations could have adverse implications for NATO, since the Administration maintains that more mobility assets are also needed there. Nonetheless, much of the impetus for improving mobility forces has been motivated by the RDF and not NATO planning.

Support Force Needs

Support forces--the people who do construction, deliver ammunition and other supplies, maintain communications, and treat the wounded--are as critical to the success of any engagement as are combatants. The locale in which the RDF would fight would exert a greater influence on RDF support needs than would the actual numerical size of forces. Unlike NATO Europe, with its industrial economies, its complex transport and fuel distribution networks, and its advanced medical facilities, the Persian Gulf region offers what the military terms a very "immature theater." Thus, it presents the RDF with a deficiency of support resources that would have to be covered.

RDF planning makes each of the four services responsible for providing units to sustain its own combat forces. But the Army has the additional responsibility of establishing and maintaining for all services the basic regional logistic infrastructure--road maintenance, water distribution, and so forth. The support forces now available to Army RDF units--which are designed to support a logistics network in NATO, not in the much less developed Persian Gulf area--are too few to accomplish this task.

Analysis of Army data by CBO suggests that the current RDF would need approximately 49,000 more support personnel than are now available. Over the next five years, the Army plans to dedicate 6,000 (about 20 percent) of its planned increases in military personnel to providing more support. This would leave an unfilled requirement of 43,000 persons. The Administration plans to meet this unfilled requirement by drawing upon the support forces available to deploy to Europe in the event of a NATO war; this plan rests on the expectation (thus far, unmet) that the NATO allies will be able to provide support beyond what current agreements specify. The Congress, however, may decide that support for the RDF should not be

at the expense of support to other commitments, particularly the defense of NATO. If so, meeting this requirement by adding 43,000 persons over the next five years would cost approximately $1.3 billion.

For the current RDF, though it is roughly half the size of the Administration's planned version, the cost of meeting the support shortfall would differ by only a marginal 9 percent, or $100 million. This is because, for RDFs above a certain threshold size, the shortfall depends mainly on the need to set up the elaborate logistics infrastructure. That need is a function of the theater itself, not of the size of RDF. For a smaller RDF, because it would not be designed to sustain combat operations over long periods, a large logistics network would not be necessary. As a result, the smaller RDF could probably be supported without any increases in support forces beyond those already planned.

CHAPTER I. INTRODUCTION AND BACKGROUND

On 1 October 1979, President Carter announced before a television audience the existence of the Rapid Deployment Forces (RDF). Intended to be a mobile force capable of responding to contingencies anywhere in the world, the RDF has had no new combat forces created specifically for it. Rather, the RDF has been composed mostly of existing forces that already have commitments, primarily to Western Europe (NATO) and Northeastern Asia (principally Korea).

The composition of the RDF, as conceived by the previous Administration and as it has remained until now, is illustrated in Table 1. All told, the number of troops with RDF assignments is 222,000--approximately 11 percent of all active-duty personnel from all four branches of the U.S. armed services. 1/ The current Administration, however, plans to increase the size of the RDF over the next five years. Press reports indicate that the size will nearly double to approximately 440,000 people. 2/ At the same time, though other planners argue that a smaller RDF might suffice.

PRINCIPAL ISSUES AND PLAN OF THE STUDY

Though the RDF has since its creation been a subject of considerable debate, relatively little attention has been paid to its implications for the defense of NATO or for the U.S. defense budget. To date, most concern has focused on practical but narrower questions. What types of forces should the RDF consist of? What combat units? Where should the RDF be prepared to fight? Particularly in light of the Administration's planned numerical expansion of the RDF, this study provides analytical background

---

1. Although some reserve component forces may actually deploy with the RDF, early deploying combat and support units will be drawn primarily from active forces. See U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1984, p. 199.

2. See U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1984, p. 198; and "Special U.S. Force for Persian Gulf Is Growing Swiftly," The New York Times, October 25, 1982, p.1.

TABLE 1. U.S. FORCE COMMITMENTS TO THE CURRENT RDF, BY SERVICE

Combat Forces	Numbers of Personnel
ARMY	
82nd Airborne Division	100,000
101st Airborne Division (Air Assault)	
24th Infantry Division (Mechanized)	
6th Combat Brigade (Air Cavalry)	
Various ranger and special forces units	
AIR FORCE	
1st Tactical Fighter Wing (F-15)	30,000
27th Tactical Fighter Wing (F-111)	
347th Tactical Fighter Wing (F-4)	
354th Tactical Fighter Wing (A-10)	
366th Tactical Fighter Wing (F-111)	
552nd Airborne Warning and Control Wing (E-3A)	
150th Tactical Fighter Group, Air National Guard (A-7)	
121st Tactical Fighter Wing, Air National Guard	
Reconnaissance squadrons	
Tactical airlift squadrons	
Conventional Strategic Projection Force	
Various other units	
NAVY	
3 Aircraft carrier battle groups	42,000
1 Amphibious Ready Group	
5 Squadrons of antisubmarine warfare patrol aircraft	
18 Near-term prepositioning ships	
MARINE CORPS	
Marine amphibious force (division + wing)	50,000
7th Marine Amphibious Brigade	
Total--All Services	222,000

SOURCE: Congressional Budget Office from data contained in Fact Sheet, Public Affairs Office, HQ Rapid Deployment Joint Task Force, August 1982.

for assessing the broader issues of NATO's defense and the U.S. role in it, and the implications of the RDF for the U.S. budget.

Plan of the Paper

For an assessment of the desirability of a larger or smaller RDF with regard to the effects on the U.S. commitment to NATO and on the defense budget, several types of information can be useful. The remainder of this chapter recapitulates the background leading to the current deliberations about the RDF, outlines three possible RDFs of very different sizes, abilities, and costs, and reviews the policy implications of decisions about the RDF.

To provide a guide to considering the merits of RDFs of various sizes, Chapter II analyzes the military capabilities and possible applications of each of three RDF force levels and some possible threats the RDF could confront. Chapter III examines the implications for the NATO commitment of the RDFs of alternate sizes; the chapter compares the current balance of NATO and Warsaw Pact forces and the effect that the deployment of each RDF force level could have on that balance. Chapter III also shows the cost of simultaneously maintaining the current balance and deploying various versions of the RDF. Chapter IV, using the Administration's currently planned program as a basis, analyzes the time that would be required to deploy each version of the RDF and estimates the resources needed to achieve a reasonably speedy delivery. Chapter V examines the support requirements--such as transportation, communication, and construction--associated with each version of the RDF. The chapter then estimates the ability of the current military structure to support each force level and determines the costs of meeting shortfalls.

BACKGROUND ON THE RDF

Implicit in any decision about the appropriate size of the RDF and the nation's fiscal commitment to it are questions about what objectives the RDF is to accomplish. In its short history, the RDF has undergone considerable shifts in geographic emphasis and definitions of purpose.

History

In 1977, a presidential directive called for a mobile force capable of responding to worldwide contingencies but to be established without

diverting forces from NATO or Korea. 3/ Not until the aftermath of the Iranian revolution in 1979 and the acknowledgment of a Soviet combat brigade in Cuba in that same year, however, did a concerted effort to establish the force envisioned in the directive begin. These events led to President Carter's announcement in October 1979 of the formation of the RDF. Conceived as a force with a global orientation, the RDF soon focused its attention and planning on the Persian Gulf region. This narrowing of emphasis was precipitated by the Soviet invasion of Afghanistan on 26 December 1979 and the subsequent announcement of the so-called "Carter Doctrine" with respect to the Gulf region in January 1980. 4/ The Carter Doctrine stated that the Persian Gulf area, because of its oil fields, was of vital interest to the United States, and that any outside attempt to gain control in the area would be "repelled by use of any means necessary, including military force."

With evolving interpretations of the RDF's purpose and geographic orientation, the command structure of the RDF has also undergone repeated change. Operation of an RDF headquarters (formally known until 1 January 1983 as the Rapid Deployment Joint Task Force--RDJTF) officially began at MacDill Air Force Base in Tampa, Florida on 1 March 1980. Initially commanded by a Lieutenant General, the headquarters was adjoined to the U.S. Readiness Command also located in Tampa. This command relationship proved unsatisfactory, however, as there was no single channel of communication through which the RDF commander could communicate directly to the Secretary of Defense on matters specifically relating to the RDF.

On 24 April 1981, Secretary of Defense Weinberger announced that the RDJTF would evolve into a separate command with specific geographic responsibilities. The planned change was favorably received in the Congress, though not unanimously. Both the Senate Committee on Armed Services and the Senate Committee on Appropriations expressed their concern ". . .about the absence of an organized effort to plan and provide for possible power projection requirements in other Third World areas which are also critical to U.S. interests." The decision to focus the attention of

---

3. See E. Asa Bates, "The Rapid Deployment Force - Fact or Fiction," Journal of the Royal United States Institute for Defense Studies (June 1981), p. 23.

4. See President Carter's State of the Union address before the Congress, 23 January 1980.

the RDJTF solely on Southwest Asia--to the exclusion of other areas, such as central and southern Africa--did little to ease this concern. 5/

With the start of this calendar year, the RDJTF became a separate unified command known as the U.S. Central Command. The commander enjoys the same stature as other theater commanders, and he reports directly to the Secretary of Defense. His operational planning responsibility is limited to Southwest Asia only. 6/ (The Department of Defense distinguishes between the U.S. Central Command and the RDF. The Central Command is primarily a planning headquarters; the forces available to it are the RDF. For simplicity, this study uses the term RDF throughout.)

The Central Command's focus on Southwest Asia does not imply that the RDF could not be used elsewhere; RDF forces could be assigned to other commands if needed. The Central Command, however, will focus only on Southwest Asia. Thus, this study also focuses on that area, since it is where the RDF would most probably be used.

THE SIZES, MISSIONS, AND BUDGETARY COSTS OF THREE POSSIBLE RDFS

The appropriate size of the RDF--and accordingly, its budgetary costs--hinges largely on what military purpose the force is intended to serve. This study examines RDFs manned at three levels:

- The Administration's planned expanded RDF, consisting perhaps of 440,000 personnel;
- The current 222,000-man force; and
- A smaller force of 165,000 personnel.

---

5. See Department of Defense Authorization for Appropriations, Report No. 97-58, p. 37; and Department of Defense Appropriation, Report No. 97-273, p. 7.

6. See U.S. Department of Defense, Annual Report to Congress Fiscal Year 1984, p. 194.

16-284 O - 83 - 4

A Larger RDF--Without and With Additional Forces

The larger version of the RDF envisioned by the current Administration, which might eventually consist of some 440,000 troops, would be charged with a dual mission. Its first commitment would be to deter aggression against any Southwest Asian country--with the Soviet threat to Iran seen as the most demanding threat. Should deterrence fail, however, this RDF could be expected to be capable of repelling a Soviet assault on Iran. Despite this sizable assignment, the Administration's plan proposes no increase in funding for ground combat forces for the RDF. Nor would the Administration procure additional mobility forces beyond those now planned for an RDF half the size.

To establish an effective force of this size without adding to costs, the Administration is prepared to relax some of its commitments to NATO, hoping that the European allies will take greater responsibility for the defense of NATO than they now do. 7/ The Administration hopes the allies would provide not only additional combat forces but also additional support forces. If they did not, then NATO's capabilities vis-a-vis those of the Warsaw Pact alliance would be reduced, and the risks would be higher. For example, if in the event of NATO/Pact war, NATO had to do without the U.S. ground forces drawn off for use in the larger RDF, then, by the thirtieth day of a conflict, the NATO position in the balance of ground forces could be eroded by about 12 percent. Similarly, even with the mobility improvements now planned, it would take about 40 days to deploy all the unit equipment of the larger RDF to the Persian Gulf, compared to 30 days for the current RDF.

Maintaining NATO capabilities while also expanding the RDF would require additional combat, support, and mobility forces specifically for the RDF. Costs for added forces--though not proposed by the Administration--would be substantial. Assuming the RDF were expanded and equipped with assets adequate not only to counter the Soviets in Iran but also to sustain the current NATO commitment, the costs in defense budget authority over five years would rise by a total of about $44.9 billion (see Table 2).

The Current RDF Without and With Added Forces

As the RDF was conceived, its emphasis was deterrence of Soviet aggression. Another important objective was the support of friendly and

---

7. See Statement of Secretary of Defense Casper Weinberger before the House Committee on the Budget (23 September 1981), p. 9.

TABLE 2. PROJECTED CUMULATIVE BUDGET AUTHORITY INCREASES AND SAVINGS (-) FOR RDFs OF THREE SIZES, RELATIVE TO ADMINISTRATION PLAN (1984-1988, in billions of 1984 dollars)

Cost Components	RDF of 440,000		RDF of 222,000		RDF of 165,000
	No Added Forces a/	Added Forces	No Added Forces	Added Forces	
Added Army Combat Forces	0	37.8 b/	0	18.9	0
Mobility Forces	0	5.8	0	0	-11.0
Support Forces c/	0	1.3	0	1.2	0
Total	0	44.9	0	20.1	-11.0

SOURCE: Congressional Budget Office, from data provided by the Department of Defense.

a. Administration plan.

b. Added tactical air wings may also be needed but are not included in these costs. Costs over the next five years would equal at least $3 billion per added wing.

c. Includes persons to meet support shortfalls plus those needed to recruit and train added personnel.

politically moderate states against attack from hostile neighbors or subversion. Designers of the original RDF did consider fighting Soviets in Iran as possible, but they viewed the 222,000- man RDF as a sizable deterrent.

The original RDF did set precedent for the Administration's proposal in allowing a relaxation of the U.S. commitments to NATO and encouraging the allies to do more with respect to combat and support forces. Inasmuch as only half the number of NATO-committed personnel would be diverted to an engagement involving the current RDF, however, the erosion of U.S. NATO reinforcements would be diminished by half.

Nonetheless, if ground combat, mobility, and support forces were added to counter the diminution of U.S. force strength in NATO, the budgetary costs of even the current RDF would be significant. If implemented over five years, this force augmentation would add approximately $20.1 billion to total defense budget authority (see Table 2), though again, no such increases have been proposed by the Administration.

A Smaller RDF

The RDF could be designed--and appreciably reduced in size--for less ambitious, though perhaps more plausible, applications. For example, a smaller RDF might be particularly well suited as a security force to reinforce a friendly state subject to insurrection or spillover effects from local conflicts in the Gulf region. An RDF of 165,000--roughly three-fourths the size of the current RDF--could not sustain theater military operations. But it would suffice for limited actions requiring units that are rapidly deployable and specially trained in the political and military sensitivities of the area. A force this small and specially adapted could be created using forces from all services at little cost to U.S. commitments elsewhere. It would require no additional budgetary costs. In fact, over five years, savings of about $11 billion could be realized if some of the mobility assets to be purchased in part for the RDF were cancelled (see Table 2).

POLICY IMPLICATIONS

Implicit in the foregoing review of possible sizes of RDF is a question concerning the United States' traditional and current commitments relative to its possible obligations elsewhere. Under what conditions would an RDF that necessitated any appreciable diminution of U.S. commitments in Europe and Northeast Asia be acceptable?

The Administration has made reasonably clear the rationale for its choice of a larger RDF with extensive implications for NATO. In September 1981, Secretary Weinberger indicated that the threats facing NATO and Northeast Asia appeared less urgent than those in Southwest Asia. 8/ A reorientation of emphasis was thus appropriate. Further, the Secretary argued, the United States' European allies would have to make up

---

8. See Statement of Secretary of Defense Casper Weinberger before the House Committee on the Budget (23 September 1981), p. 9.

for this shift by doing more in their own behalf than they are now doing. (At the same time, the Administration has made clear its intent to limit any reorientation of emphasis to U.S. forces that reinforce NATO after a war began. The Administration has argued forcefully against any withdrawal of U.S. combat forces stationed in NATO during peacetime.)

Consistent with its position, the Administration has assigned to the RDF only those costs associated with its special missions and not the costs of maintaining any forces or adding new ones. Examples of costs assigned to the RDF include selected costs of training exercises, military construction, and prepositioned ammunition. In 1983, these items are estimated by the Defense Department to generate a cost in budget authority for the RDF of $737 million. (See Appendix A for discussion of this and other ways to assess RDF costs.)

Nonetheless, though not now proposed by the Administration, an expansion of U.S. ground combat forces could eventually be proposed to compensate for the loss to NATO implied by an RDF augmentation and deployment. Indeed, Secretary Weinberger, testifying before the U.S. House of Representatives Budget Committee indicated that, though no new forces have been generated for the RDF, "we might want to do so in the future." 9/ Reflecting a similar sentiment, the Chief of Staff of the Army has stated that, in the long run, the Army will need to add from three to five new divisions to its current 16 to meet the twofold demands of NATO support and an RDF deployment. 10/ Any such additions would add substantially to costs.

Given the long-term implications of the RDF for the defense budget and for NATO, the Congress may wish to review the Administration's plan as it has emerged thus far. Should the Congress agree with the Administration's policy of reorienting forces and resources from NATO to Southwest Asia, then it may, as the Administration proposes, endorse the larger RDF with no additional funds. Should the Congress feel that reorienting so many forces away from NATO is not appropriate, then it may elect to provide additional resources for the RDF. On the other hand, especially in light of the pressures now affecting the federal budget, the Congress may elect to limit the RDF to its current level or to an even lower one.

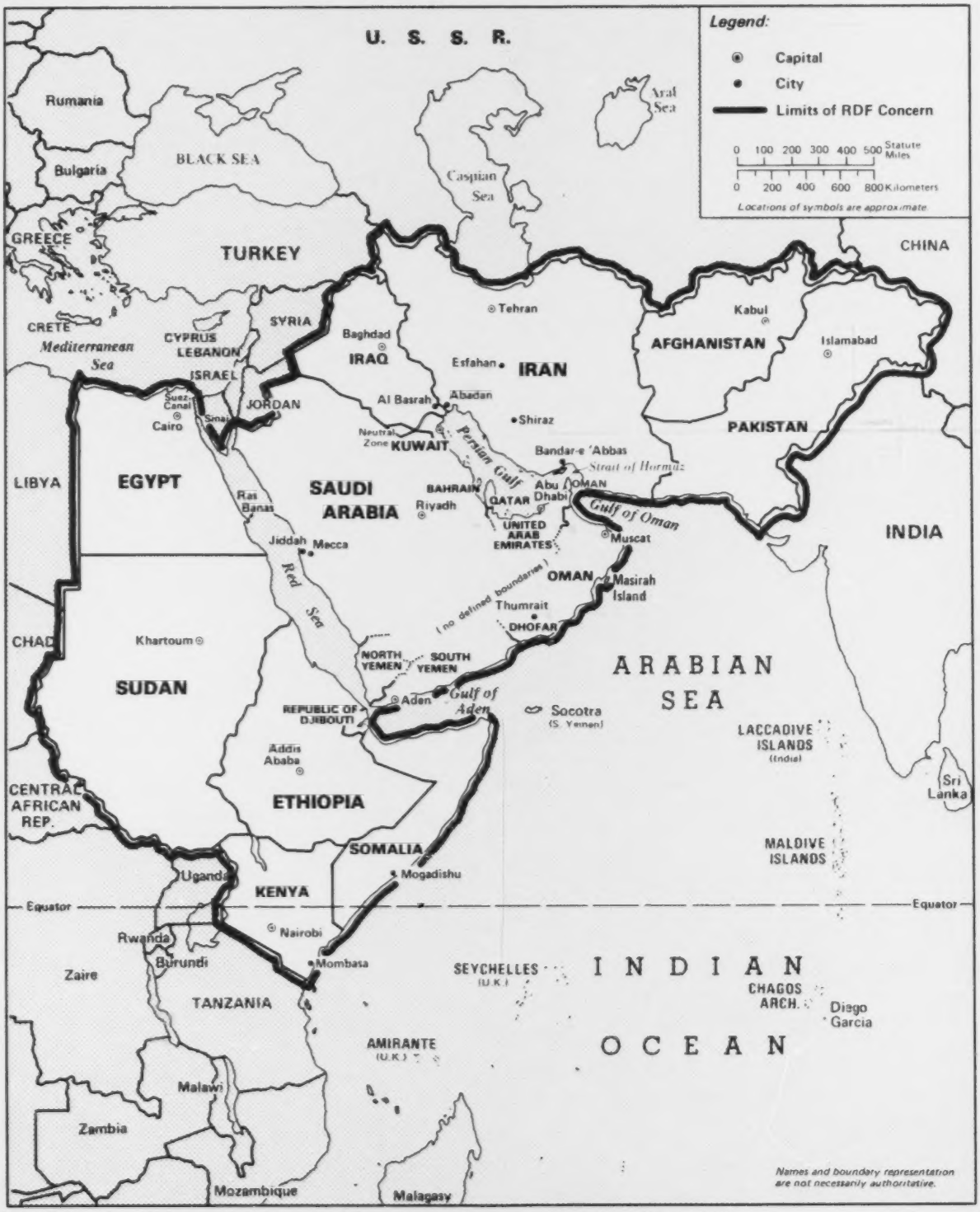
---

9. See Statement of Secretary of Defense Casper Weinberger before the House Committee on the Budget (23 September 1981), p. 9.

10. Reported in "Army Chief Reports a 'Renaissance'," The New York Times, October 15, 1982, p. 24.

Figure 1.

Area of Concern for U.S. Rapid Deployment Forces in Southwest Asia



SOURCE: Adapted by Congressional Budget Office from U.S. Department of Defense Annual Report FY82.

CHAPTER II. COMBAT REQUIREMENTS FOR ALTERNATIVE RDF FORCE SIZES

Underlying any decision about the appropriate size and configuration of the Rapid Deployment Forces and the budgetary commitment to them are questions about the nature and magnitude of the threats they would confront. The desired capabilities of the RDF are in large measure a function of these factors. This chapter therefore reviews the configuration of RDFs set at the three size levels outlined in Chapter I and assesses those against the background of possible enemy threats. Table 3 presents the force composition of the three RDFs analyzed. Inasmuch as planning for the RDF is now narrowly focused on Southwest Asia (illustrated in Figure 1), the analysis also is limited to that region, although in theory, the RDF could be used elsewhere.

THE LARGER RDF PLANNED BY THE ADMINISTRATION

Press reports suggest that the Administration will nearly double the size of the current RDF during the next five years. The effects on the four services would not be uniform, however. The three Navy carrier battle groups now available to the RDF would remain the same as under the current planning. The other services, though, would significantly increase the combat forces they make available to the RDF (see Table 3). Army combat forces would increase from three and one-third divisions to five, up by about half; Air Force combat forces would grow from seven wings to ten; Marine Corps forces would rise from one and one-third to two Marine amphibious forces, again, up by about half.

The configuration of this force is designed primarily to counter what the Administration believes is the most serious threat to Southwest Asia: a Soviet invasion of Iran. 1/ Inherent in this thinking is the belief that all contingencies of a lesser nature could be handled using only part of the larger RDF. Thus, if the United States could defeat a Soviet invasion of

1. See Francis J. West, Jr., Assistant Secretary of Defense for International Security Affairs on S. 2248, Sea Power and Force Projection, testimony before the Senate Committee on Armed Services, 97:2 (12 March 1982), part 6, p. 3723.

TABLE 3. FORCE COMPOSITION OF THREE POSSIBLE RDFs, BY SERVICE

	Larger RDF	Current RDF	Smaller RDF
Army Combat Divisions a/	5	3 1/3	1
Navy			
Aircraft Carrier Battle Groups b/	3	3	3
Amphibious Ready Group c/	1	1	1
Air Force Tactical Fighter Wings d/	10	7	5
Marine Corps			
Marine Amphibious Forces e/	2	1 1/3	1

SOURCE: Compiled by CBO from information provided by the Public Affairs Office, Headquarters RDJTF, and press reports.

a. Each division consists of 16,000 to 18,000 soldiers.

b. Each would comprise one aircraft carrier plus six surface escort ships.

c. Typically consists of three to five amphibious ships including an amphibious assault ship.

d. Each would consist of approximately 72 aircraft.

e. Each would consist of a ground combat division, a tactical fighter wing, and sustaining support, totaling approximately 45,000 people.

Iran, it could carry out the Carter Doctrine that commits the United States to repel any outside attempt to gain control of another nation in the Persian Gulf region.

Assessing the Soviet Threat in the Gulf Region

The Administration's belief that a Soviet invasion of Iran ought to be the motivating threat stems mostly from known Soviet military capabilities in the area. In all, the Soviets have about 170,000 troops stationed near Iran in peacetime, and the number could grow to 380,000 after a relatively short period of mobilization. North of Iran, in the southern part of the Soviet Union, are stationed 24 Soviet divisions. Most of these are so-called "cadre" divisions; in peacetime, they are manned at only about 25 percent, and during mobilization, they would have to be filled by reserve forces. 2/ Nonetheless, the United States estimates that these divisions could be deployed within a matter of weeks of a Soviet decision to mobilize. In addition, six Soviet airborne divisions are stationed throughout the northwestern part of the Soviet Union. Though half the size of a U.S. airborne division (8,500 troops in a Soviet division, as opposed to 17,000 in a U.S. division), a Soviet airborne division is well equipped with light armored fighting vehicles that can provide good ground mobility and protection for soldiers. In addition, the Soviets now have roughly 95,000 troops deployed in Afghanistan. They still face considerable effective resistance there, but should they secure their hold, Afghanistan would provide an excellent staging area from which to launch air and ground attacks on Iran.

The Administration may also regard a Soviet invasion of Iran as the most serious threat because of Iran's strategic position on the shipment route of most Southwest Asian oil. At present, about 20 percent of all the West's oil is shipped through the Persian Gulf and through the narrow Strait of Hormuz. Both the Gulf and the Strait lie on the southwestern shore of Iran. A successful invasion of Iran could cut off these oil supplies and exert severe economic pressures on the West.

In combination, these factors suggest that a Soviet invasion of Iran is indeed a serious threat. If the United States wishes to have confidence in its military ability to halt a Soviet invasion of Iran, it may well need a substantial force with a rapid deployment capability. On the other hand, even as large an RDF as envisioned by the Administration might have trouble against a determined Soviet invasion of Iran. Deploying the 440,000-man RDF would require shipping (besides troops) about 1.5 million tons of materiel from U.S. bases over a distance of 12,000 miles, and doing it in six weeks' time.

---

2. For an assessment of the Soviet strength in the Gulf region, see for example, "The Soviet Military Threat to the Gulf: The Operational Dimension," unpublished paper, The Brookings Institution (1981).

16-284 O - 83 - 5

Such an operation would be highly demanding and subject to many pitfalls and uncertainties. It would, in all probability, require active support from Iran itself and from Turkey--which might not be available. Turkish air bases would be necessary if the United States were to succeed in using tactical aircraft to interdict Soviet forces in northwest Iran. The willingness of the Turks to provide necessary support is far from certain, however. (Though a member nation of NATO, Turkey might be reluctant to serve as an RDF staging area because of the boundary it shares with the Soviet Union.) Similarly, staging bases in Iran would no doubt be needed to move the many tons of materiel. In the current climate of hostile relations between the United States and Iran, that Iran would welcome U.S. forces in their country seems highly unlikely. 3/

The likelihood of a Soviet invasion's occurring at all is questionable. Were the Soviets to undertake such an invasion, they would invite great military risk. The NATO allies, faced with loss of critical oil supplies, could seriously consider a counterattack against Warsaw Pact forces in Europe; this would open a new front on which the West is in a relatively better military position. Furthermore, the political hazards to the Soviet Union could be as great as the military ones. An attack would draw criticism of the Soviet Union as an expansionist power, with military goals far in excess of those necessary for self defense. Soviet credibility and influence in the Third World could thus be severely damaged.

Tactical and logistic problems could also impede a Soviet assault on Iran. An overland attack against any resistance at all would be difficult. The topography of northern Iran, characterized by mountainous terrain with narrow passes and deep gorges, would make movement slow and dangerous, favoring defending forces. Air cover for advancing Soviet forces would also be limited, as Soviet fighter aircraft would have insufficient range to provide continuous tactical air support to ground forces far to the south. As a result, intermediate staging bases would have to be established in Iran if the Soviets hoped to push south to the Gulf.

These difficulties suggest that a more likely Soviet tactic would be a limited attack to secure the northwest region of Iran. Such an action would be motivated by logistic concerns similar to those underlying the Soviets' aggression against Afghanistan. A limited attack there would allow the Soviets to consolidate their forces, establish forward operating

---

3. In the wake of Iranian radicals' holding 52 U.S. citizens hostage for 15 months, diplomatic relations between the United States and Iran were severed in April 1980, and they have not been restored.

bases for air and ground forces, and position themselves for a deeper attack to the south. 4/ Should the Soviets choose this course of action, however, they would forgo the advantage of making a quick, deep thrust into Iran and consolidating a position around the Gulf before other countries--and the United States in particular--could react.

For all these reasons, a Soviet invasion of Iran appears to most military analysts to be a highly implausible prospect. The Administration agrees that limited regional conflicts or subversion are in fact far more likely. 5/ Yet it has decided that RDF sizing and planning should be based on the worst possible threat.

THE CURRENT RDF

The current RDF, with its 222,000 persons, contains much of the same early deploying ground combat power of the Administration's larger RDF (see Table 3). With more than three Army divisions, one and one-third Marine amphibious forces, seven Air Force tactical fighter wings, and four naval groups, this force possesses considerable ability. It is not, however, suited to the "worst possible threat." It might be adequate to deter a Soviet invasion of Iran; but it might have difficulty actually stopping a concerted Soviet invasion.

Assessing the RDF's Force Capabilities

The types of forces, not the number, in the current RDF account for the relatively limited capacity. The Marine Corps forces, for example, traditionally operate within 50 kilometers of a beachhead. Though extending their use beyond this range has precedent (for example, in

---

4. For a more in-depth discussion of this scenario, see Joshua M. Epstein, "Soviet Vulnerabilities in Iran and the RDF Deterrent," International Security (Fall 1981); and Dennis Ross, "Considering Soviet Threats to the Persian Gulf," International Security (Fall 1981).

5. See Francis J. West, Jr., Assistant Secretary of Defense for International Security Affairs on S. 2248, Sea Power and Force Projection, testimony before the Senate Committee on Armed Services, 97:2 (March 12, 1982), part 6, p. 3723.

Vietnam), their equipment and structure does not make them ideally suited for stopping a Soviet invasion of Iran; such an effort would mean combat operations deep inland against a heavily armored Soviet ground combat force. Two of the three Army divisions included in the current RDF are also limited in ability because of their relatively light nature. Once landed, the 82nd Airborne Division and 101st Airmobile Division lack even a lightly armored capability to provide the necessary antitank capability and mobility. Thus, these divisions' usefulness lies primarily in their ability to fight in mountains against a limited armor force or light infantry forces. Stopping a Soviet invasion of Iran might require U.S. forces to engage Soviet armor in desert terrain. Only the third Army division in the current RDF, the 24th Mechanized Divison, possesses the tactical mobility and offensive power to engage in armor battles on desert terrain.

The current RDF also contains only seven tactical fighter wings (about 504 planes). Though additional aircraft might be available from the aircraft carrier currently operating in the Indian Ocean, few would have sufficient range to conduct air operations against Soviet forces in northwestern Iran. 6/ As a result, there might not be sufficient U.S. aircraft to provide both the capability to interdict Soviet movements and to defend U.S. forces against Soviet attacks.

Against actions other than concerted Soviet invasion, however, the current RDF would have considerable combat power. Besides the 130,000 ground troops, the ground forces in the current RDF contain approximately 400 M60 tanks, 300 attack helicopters, and 600 antitank missiles. Though this force is numerically smaller than the ground forces of Iran (150,000), Syria (170,000), or Iraq (300,000), few analysts would question the superior capacity of U.S. forces. The effectiveness of U.S. materiel has been proven in recent combat in the Middle East.

Thus, the current RDF could probably serve successfully in support of friendly Arab states involved in regional conflicts--which are not unlikely. Hostilities between Oman and the Peoples Democratic Republic of Yemen, or between Ethiopia and Somalia, could certainly erupt again in the future and, in fact, would be much more likely than any overt Soviet move into the region.

---

6. The United States maintains at least one and sometimes two aircraft carriers in the Indian Ocean. These carriers are drawn from the 7th Fleet in the Pacific or the 6th Fleet in the Mediterranean.

THE SMALLER RDF

Subversion and internal upheavals are a serious threat to U.S. interests in Southwest Asia. Recent examples include the alleged Iranian attempt at a coup in Bahrain in 1981 and Libyan attempts at subversion in Egypt, Sudan, and Somalia. The Department of Defense believes that these incidents are of particular interest to the Soviets as a means of gaining influence in the area. In fact, the department has indicated that the Soviets are far more likely to encourage subversion as a policy rather than risk war with the United States through direct military aggression. 7/

The record of U.S. involvement in armed conflict since World War II also suggests that minor conflict is the more likely scenario. One study has enumerated 215 incidents since 1945 in which the United States used military force to further its political interests. Only 45, or about 20 percent, involved ground combat forces. Only about 5 percent of the incidents involved ground combat forces of division size or larger (a division consists of about 16,000 to 18,000 troops). 8/

These factors would not justify a large force designed to fight in a major battle against either Soviet invaders or even the armies of lesser powers. Rather, they suggest a much smaller force specifically tailored and trained to counter subversive attempts against the governments of friendly nations. Such a smaller RDF, consisting of about 165,000 troops, could include one Army division, one Marine amphibious force, three carrier battle groups, and five tactical fighter wings (see Table 3). Trained specifically for quick responses to the needs of friendly countries, the force would be sensitive to the military and political needs of the client governments. Training could concentrate more on peacekeeping than on combat. Forces would be familiar with the political history of the region, the various political factions, the loyalties of the armed forces, and the driving religious and other cultural loyalties of the people.

Though manned by 75,000 ground groops, this smaller RDF would still equal or exceed the size of many Mideastern armies; it would not, however,

---

7. See Francis J. West, Jr., Assistant Secretary of Defense for International Security Affairs on S. 2248, Sea Power and Force Projection, testimony before the Senate Committee on Armed Services, 97:2 (March 12, 1982), part 6, p. 3723.

8. See Barry M. Blechman and Stephen S. Kaplan, Force Without War, The Brookings Institution (1978).

have the tanks and other ground combat capabilities of the current RDF. Thus, its value in regional conflicts would be more limited. Moreover, the smaller RDF would be badly outnumbered by Soviet ground troops available to invade Iran. Thus, it could offer almost no resistance against a Soviet invasion. Some observers would also argue that, with the smaller RDF, the deterrent value of the RDF would be lost, inviting the Soviets to take a more aggressive military stance in Southwest Asia.

OTHER CONSIDERATIONS IN DESIGNING AN RDF

The combat capability of the RDF could be affected by changes other that those that would alter its size or configuration. Effectiveness in the Iran scenario could be increased if greater tactical mobility and antitank combat power were available for the Army's light forces. The Army is currently structuring a prototype light division called a High Technology Light Division (HTLD). The HTLD is to have new types of vehicles that may have much of the firepower of today's heavy armored forces; but they will also be lighter and therefore more easily deployable. Tests are now under way, and the HTLDs might be available in the mid- to late 1980s. If the HTLD proves successful, restructuring Army light divisions might offer the RDF increased capability without greater numbers of forces.

Observers have also argued that the United States should increase its ground combat power primarily through the procurement of additional light armor. Rather than designing new vehicles, this approach would entail buying existing tanks armored lightly. Such tanks might carry less than half the armor now on the M60 tanks earmarked for use in the RDF. This would add firepower and lighten the airlift burden for deployment. (Chapter IV examines mobility needs, including airlift.)

Even without improvements such as the HTLD or light armored tanks, analysts differ about the capabilities of the current RDF and hence the need for a larger one. Both the current commander of the RDF and the former Under Secretary of Defense for Policy in the Carter Administration have argued that the anti-armor capability already available to the ground and air forces in the RDF could cope with anticipated armor threats in the Persian Gulf. Another analyst, however, argues that the current RDF does not have access to sufficient tanks and armored personnel carriers to contest the mechanized forces so prevalent in Southwest Asia. 9/ Other questions, however, have as important a bearing on this debate.

---

9. See "The Rapid Deployment Force--Too Large, Too Small or Just Right for Its Task?" National Journal, March 12, 1982, p. 454.

CHAPTER III. THE EFFECTS OF AN RDF MOBILIZATION ON THE U.S. COMMITMENT TO NATO

Because the Rapid Deployment Forces are composed primarily of U.S. forces committed to NATO, the size of RDF decided on will determine the magnitude of the RDF's implications for NATO. However many forces were drawn off from the NATO defense for an engagement involving the RDF, that many forces would become unavailable to NATO. In peacetime, such a shift need be of little importance. In the event of two simultaneous wars--one in Europe involving NATO, the other elsewhere involving the RDF--the implications could take on sizable dimensions. The need to consider these implications seems particularly pressing in view of the Administration's plan to increase the size of the RDF.

For each of the versions of the RDF outlined in Chapter I, this chapter examines the effects that an RDF deployment could have in the event of simultaneous wars in Europe and Southwest Asia. As background for judging the importance of these effects, the chapter begins with a brief description of the present-day balance of NATO and Warsaw Pact forces.

To provide another perspective for assessing the appropriate size and configuration of the RDF, the chapter also estimates the costs of adding enough new forces to maintain the present commitment to NATO while also deploying an RDF. The estimate suggests that, should the U.S. armed services attempt to increase their forces to avoid cutting back on the NATO commitment, the pressure such efforts would exert on future defense budgets could be considerable.

THE BALANCE OF FORCES IN NATO AND THE U.S. COMMITMENT

A strong commitment to NATO has been the focal point of U.S. defense planning--and spending--for many years. At present, the United States Army maintains in West Germany the combat equivalent of more than four "heavy" divisions. These are complemented by an Air Force contingent that consists of 28 tactical fighter squadrons (most squadrons have 24 planes each). 1/ Navy forces are also on patrol in NATO waters in the Atlantic Ocean and the Mediterranean Sea.

---

1. See U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1983, pp. III-5, III-38.

In the event of a European conflict, U.S. plans call for supplementing these forces within ten days of mobilization with an additional six Army divisions and 60 Air Force fighter squadrons normally stationed in the continental United States. 2/ Another five Army divisions could be deployed to NATO within the first three months. Thus, under current planning, all active Army divisions but one are committed to NATO (the one in Korea would remain there). Moreover, virtually all of the active Air Force fighter squadrons, supplemented with reserve fighter squadrons, are committed to NATO.

The Balance Today

Despite this substantial U.S. commitment, doubts about the outcome of a conflict in Europe between the NATO and Warsaw Pact alliances persist. A war, NATO assumes, would be initiated by a Warsaw Pact attack, using conventional (nonnuclear) weapons. The Pact would attack with a large number of ground divisions, perhaps focusing its assault on the north German plain, which offers good terrain for movement of armored divisions. In an attempt to destroy NATO's air bases, resupply facilities, and nuclear capabilities, the Pact might also mount a major air attack. The NATO allies would attempt to defend as far east as possible in order to minimize any loss of territory.

Force Ratios. Force ratios are a basis commonly used for assessing the potential capability of NATO forces relative to those of Warsaw Pact. Though these ratios cannot capture certain important but intangible factors such as quality of leadership, tactics, morale, and weather, they do give decisionmakers and planners a rough gauge of relative force capabilities and trends.

As a basis for assessing the force ratios, this study uses an analytical tool devised by the Department of Defense. Called an Armored Division Equivalent (ADE), this tool provides a measure of relative combat power over time. By this technique, each weapon is assigned a numerical value based on its technical capability and likely usefulness in combat. The "score" for a given unit is the sum of the values for all of the weapons available to it. That value is then divided by the equivalent score for a generic U.S. armored division in order to measure all units by a common

---

2. See "Pentagon Draws Up First Strategy for Fighting a Long Nuclear War, The New York Times, May 30, 1982, p. 12.

denominator. In assessing the current balance, the Congressional Budget Office has updated a 1976 Defense Department analysis that uses ADEs. 3/

To assess the balance of forces on the basis of ADE scores, this study makes numerous assumptions. The study assumes, as do many military plans, that the Warsaw Pact begins mobilizing for war four days before NATO responds with its own mobilization. As noted above, the study also assumes that NATO defends itself using 15 of the 16 active U.S. Army divisions, plus various reserve and other forces. The other allies would contribute some 32 additional active divisions, plus various reinforcements. The Warsaw Pact is assumed to attack with 90 divisions, increasing that number to 120 within 30 days. The remaining 231 Pact divisions would either defend their flanks and Eastern borders or remain in reserve.

Figure 2 shows the balance, as it was assessed in 1980, of the Warsaw Pact to NATO forces during the first 90 days following a Pact mobilization. The balance is measured by the ratio of the ADE score for all Pact forces in the European theatre to the score for all NATO forces. In 1975, the Department of Defense indicated that, should the Pact achieve an overall force ratio of 1.5:1 or greater, NATO might be unable to execute a successful defense of Central Europe. 4/ Thus, the 1.5:1 Pact/NATO ratio stands as a measure of what the Department of Defense has in the past regarded as "minimally acceptable" for NATO.

The criterion suggests two periods during which the Pact could have an advantage. In the initial stage following Pact mobilization, the advantage to Pact forces (suggested by ratios of almost 2:1) would result from their preemptive move and the reaction time needed for NATO forces to mobilize in response and take up defensive positions. As reinforcements arrived from the United States, the early Pact advantage would be eroded. By perhaps the fifth week, however, the Pact's advantage would be restored, as 30 more Pact divisions became available. The ratio would reach 1.7:1 and settle there over the rest of the first three months of conventional conflict.

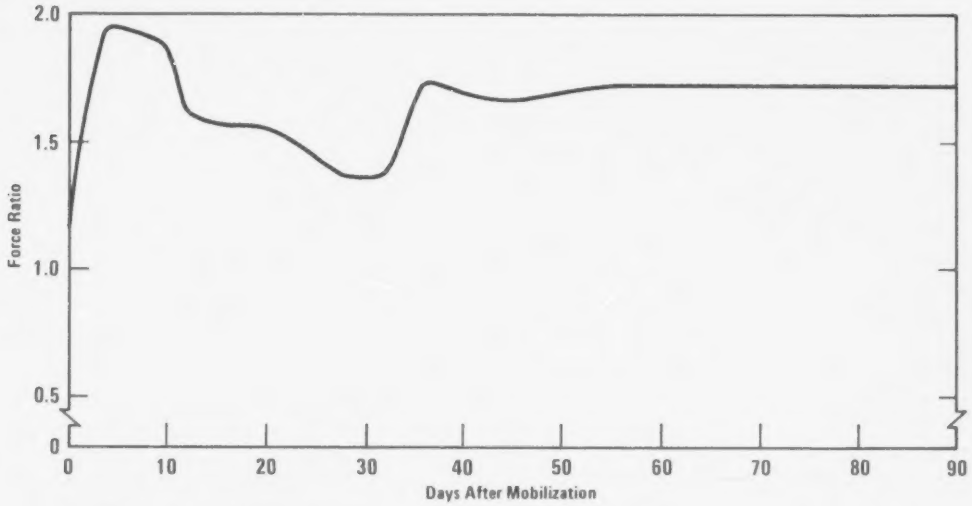
---

3. See Office of the Secretary of Defense, A Report to Congress on U.S. Conventional Reinforcements to NATO, (June 1976), p. IV-3.

4. See Annual Defense Department Report, Fiscal Years 1976 and Fiscal Year 197T, p. III-15.

Figure 2.

Shifting Warsaw Pact/NATO Force Balance: 90 Days Following Pact Mobilization



SOURCE: Congressional Budget Office.

The Projected Force Balance in 1987

A recent CBO analysis concludes that, if the Pact nations continue to modernize their ground forces at recent rates, then the modernization programs planned by the United States and its NATO allies will only maintain their current position in the force balance. 5/ Substantial improvements in NATO's position could only be achieved by adding more modernized equipment or new combat divisions. Thus, if these additions are not made, the ratio of forces is likely to remain well above the level of 1.5:1.

Even so, the risk to NATO is not easy to assess. Analysis of the ratios are subject to substantial limitations, and assumptions are made to account for uncertainties. The CBO analysis assumes, for example, that all member nations in the Pact alliance participate fully on the Pact's side; yet ongoing political events in Central Europe (such as the contention in Poland) open this assumption to question. Moreover, the Administration

---

5. See Congressional Budget Office, Army Ground Combat Modernization for the 1980s: Potential Costs and Effects for NATO (November 1982).

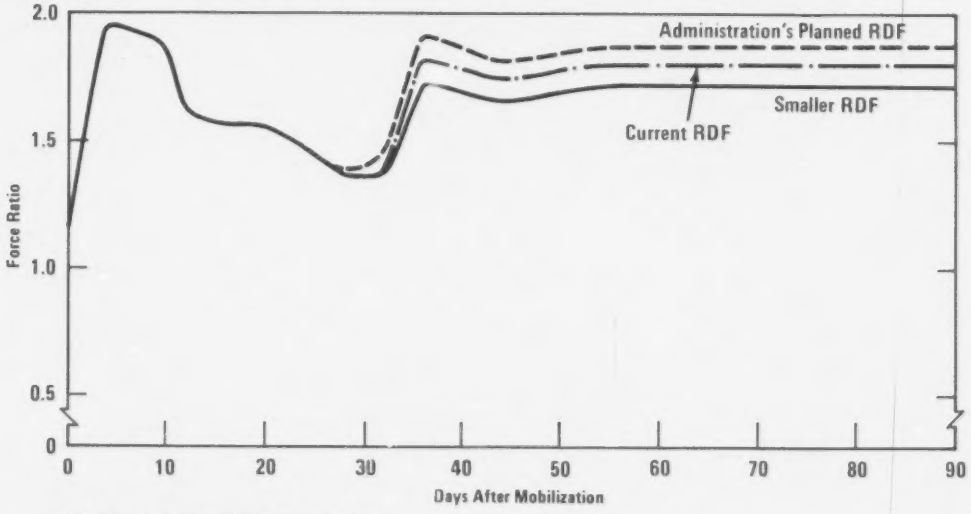
plans to add nc Army combat divisions, despite the relatively unfavorable ratios that analysis reveals. The current force balance thus appears to have been accepted by the current administration, however. It is in this context that the effects of alternative versions of the RDF therefore have to be assessed.

RDF FORCE LEVELS AND THE COMBAT CAPABILITIES OF NATO

The strength of NATO's position in the event of two simultaneous wars with one involving the RDF would vary not only with the size of the RDF but also with the timing of how it was used. The effects of force ratios on the three RDFs analyzed are displayed in Figure 3.

Figure 3.

Effects of RDF Size on Warsaw Pact/NATO Force Balance: 90 Days Following Pact Mobilization



SOURCE: Congressional Budget Office.

Effects of a Larger RDF

The effects for NATO of the larger RDF the Administration envisions would be influenced both by what specific forces were diverted from NATO and when. Not all the U.S. assets earmarked for use in the Administration's planned RDF--the five Army divisions, ten Air Force fighter wings, and the Navy and Marine Corps forces--would necessarily be drawn upon

for combat in Southwest Asia. In the Air Force, some of the ten wings assigned to the larger RDF would not necessarily be part of the 20 wings required to reinforce NATO during the first ten days of a war in Europe. The NATO role of these wings would be more one of replacement and sustainment of early-deploying NATO squadrons. Moreover, because aircraft squadrons could redeploy more easily than combat divisions, the use of those squadrons in an RDF engagement might not greatly affect NATO capabilities. Also, the Air Force plans by the mid-1980s to increase its force size from today's 36 air wings to 40 wings. This growth might fully accommodate the needs of the larger RDF, though current plans do not make clear what portion, if any, of these added forces are designated for the RDF.

Most of the Marine Corps forces assigned to the larger RDF are relatively "light" forces--that is, they lack large numbers of tanks and other armored vehicles--and so would be less useful in Central Europe. They would serve primarily on NATO's flanks (for example, Norway) or as backup later in a NATO war, and thus might be available for an early RDF deployment at no great cost to NATO's capabilities. A parallel argument can be applied to the Army's 82nd Airborne Division. This agile division, armed mostly with light antitank weapons and small arms, has traditionally served as the Army's initial fast-reaction force with no single geographic orientation. Because of this, and because the 82nd Airborne's light armament makes it less suited than many other Army divisions for combat in Central Europe, this division is not generally considered in NATO planning during the first 30 days of a conflict in Europe.

Finally, the Administration plans to build up the size of the Navy fleet from its current level of 551 ships to 600 ships, possibly including 15 aircraft carriers. 6/ This buildup may accommodate the Naval needs of the larger RDF without decreasing the forces currently available to NATO, though again, current plans do not make clear how the new Naval forces would be assigned.

These arguments suggest that the major adverse effect on NATO's position would result from four of the five Army divisions' being assigned to the larger RDF and possibly, from diversion of some of the Air Force wings. In the event of a full deployment of the larger RDF simultaneous with a NATO conflict, the absence of the Army divisions would diminish by 33 percent the number of U.S. divisions available to reinforce NATO during

---

6. See Congressional Budget Office, Building a 600-Ship Navy: Costs, Timing, and Alternative Approaches (March 1982).

the first 60 days. After about the thirtieth day of a conflict, the absence of these U.S. divisions would increase the ratio of Pact ground forces to NATO's from 1.7:1 to 1.9:1, an increase of about 12 percent (see Figure 3).

Increasing Forces to Sustain the NATO Commitment. If the United States chose not to relax its European commitment, then the Administration's larger RDF could involve substantial costs. The minimum cost would be the dollars needed to acquire and operate four additional Army divisions. (The current Chief of Staff of the Army has stated that U.S. forces should eventually be augmented by three to five divisions.) Over five years, this would require approximately $37.8 billion in budget authority to maintain the current level of protection for NATO independent of an RDF deployment (see Table 2). This figure includes approximately $7.6 billion for the additional one-time cost of four division sets of modern equipment. Opening and operating four new bases in the United States for the divisions would involve a one-time cost of approximately $9.1 billion, and operating the divisions would cost approximately $9.5 billion. Manpower increases would total approximately 200,000 troops at a cost of about $11.6 billion; this amount would cover not only pay and allowances at today's pay rates but also increased bonuses to ensure that the Army is able to attract needed additional recruits without lowering enlistment quality standards. 7/ Thus, the larger RDF could involve substantial commitments that could lead to pressure for large increases in the defense budget. Moreover, an expansion of the Army by four divisions--requiring the addition of about 200,000 troops--might well require a return to some form of peacetime conscription. Nor is this sum of $37.8 billion for additional Army divisions the only potential cost of this larger RDF.

The heavy involvement of tactical air wings also could give rise to pressure to increase the numbers of wings, though projecting exactly how many is difficult. Over five years, however, the cost to equip and operate each wing could equal approximately $3 billion in budget authority. These costs assume that the added tactical air wings would have F-16 aircraft, the cheaper of the two fighter aircraft currently being purchased by the Air Force. 8/ Moreover, the $3 billion in added costs may understate the

---

7. See Congressional Budget Office, "Alternative Military Pay Raises for Fiscal Years 1983-1987: Their Effects on Enlisted Recruiting, Retention, and Personnel Costs," Staff Working Paper (unpublished) (September 1982)

8. The unit cost of the F-16 aircraft in fiscal year 1984 budget authority is approximately $22.3 million. The cost of the F-15 aircraft is approximately $30.4 million. Currently, the Air Force plans to procure a total of 780 F-16 aircraft over the next five years.

actual amount of money required; this sum assumes no increased funds to allow a higher rate of procurement of aircraft. Given the large purchases of F-16 aircraft planned for the next five years, some added funds might be needed.

The Current RDF

For the same reasons noted in the discussion of the larger RDF, deployment of some of these forces earmarked for the current RDF might not greatly affect U.S. capability in NATO, even in the event of simultaneous conflicts in Europe and Southwest Asia. Combat forces for the current RDF consist of three and one-third Army divisions, seven Air Force tactical fighter wings, Marine Corps Amphibious forces, and Navy air and sea forces. Thus, in the two services for which force expansions are planned--the Navy and the Air Force--the United States might be able to meet the needs of the RDF without decreasing the current commitment to NATO.

As would be the case with the Administration's planned RDF, the major effects on NATO capabilities would come from the two Army divisions assigned to the current RDF, the 24th mechanized and 101st airmobile divisions. These two divisions, if deployed to an RDF mission, would be difficult to redeploy to NATO, at least early in a war. NATO planning, however, assumes the availability of these two divisions as reinforcements to the initial ten-division force.

The absence of these divisons would decrease by 20 percent the number of U.S. divisions available to reinforce NATO within the first 60 days of a conflict. The effect that the loss of these divisions would have on the balance of Warsaw Pact to NATO forces can be seen in Figure 3. Pact-to-NATO force ratios beyond about 30 days would rise from 1.7:1 to 1.8:1, an increase of 6 percent.

Looked at another way, the potential price of the RDF is the cost of retaining the current Warsaw Pact/NATO force balance independent of any RDF deployment. This would necessitate manning, outfitting, and supporting two additional Army divisions. Over five years, the cost of these two divisions--which would retain the NATO commitment independent of the current RDF--is approximately $18.9 billion in budget authority. This figure includes the additional one-time cost of procuring two division sets of modern equipment, for approximately $3.8 billion. Opening and operating two new bases for the divisions in the United States would involve a one-time cost of about $4.6 billion, plus operating costs of nearly $4.8 billion. Manpower increases would total approximately 100,000 troops

at a cost of $5.8 billion. This amount would cover not only pay and allowances at today's pay rates but also increased bonuses to ensure that the Army is able to attract needed additional recruits without compromising enlistment standards.

A Smaller RDF

Deployment of this smaller RDF would not affect NATO significantly, even in the event of two simultaneous wars. The ground combat mission could be carried out by the 82nd Airborne Division and Marine Corps units, which, as noted above, are not initially oriented toward NATO. Thus, there would be minimal impact on the NATO defense. Air Force and Navy units in the smaller RDF would be nearly the same as in the current RDF, and as in the cases examined above, might not have any effect on the NATO reinforcement mission. Accordingly, the smaller RDF need create no pressure for future increases in the defense budget. In fact, it could curb defense cost growth over the coming five years by as much as $11 billion. (The sources of these potential savings, mainly in the area of mobility, are examined in Chapter IV.)

As this chapter suggests, the most important affects of alternative versions of the RDF would be on the NATO commitment or, alternatively, on the U.S. defense budget. The budgetary costs (or savings) of transporting and supporting RDFs of various sizes are analyzed in the following two chapters.

CHAPTER IV. MEETING THE MOBILITY NEEDS OF THE RDF--POTENTIAL COSTS AND SAVINGS

Critics of the Rapid Deployment Force have charged that it lacks the assets needed to move it quickly enough to a distant theater of combat. Indeed, the Administration has launched a major program to expand U.S. mobility resources in several areas. When completed, this effort--costing more than $13 billion by 1988--will have the capacity to meet the fast mobilization needs of the current RDF. The requirements of the Administration's planned larger RDF, however, may still outstrip these mobility modernization plans.

Thus, the Congress may face decisions about financing mobility force expansions, and the size of RDF to be available would be a critical determinant. Should funding for mobility forces be set at a level that would meet the needs of the larger RDF of 440,000 troops? Of the current RDF of 222,000? Or, if the smaller RDF of 165,000 is deemed adequate for its mission, should the Congress seek budgetary savings by tailoring mobility funding to an RDF of that relatively reduced size? As background for considering these questions, a general review of the United States' current mobility assets and of the upgrades and expansions now planned can be useful.

TODAY'S MOBILITY FORCES AND THE PROPOSED IMPROVEMENTS

For an effective deployment, the current RDF would require about 396,000 tons of unit equipment to be delivered across 12,000 miles to Southwest Asia. 1/ The larger RDF could require approximately 737,000 tons; the smaller RDF, perhaps 169,000 tons. In addition to the volume of materiel that could be delivered, the timing of delivery is also critical. In

---

1. The unit equipment does not include the ammunition and resupply that would also be required for the forces. The Department of Defense has estimated that the ammunition and resupply required within the first 30 days for forces equivalent in size and capability to the current RDF may be as much as 440,000 short tons. This is approximately 10 percent more than the total tonnage of the unit equipment of the forces.

assessing RDF mobility needs, this study assumes that the United States would want to deploy all of the unit equipment for any version of the RDF within 30 days, which seems consistent with past goals. The Administration indicated that its goal for deploying all ammunition and resupply in addition to the unit equipment is six weeks. 2/

Mobility forces can be grouped into three major programs: airlift, sealift, and so-called "prepositioning." 3/ Each of these has unique abilities and limitations. Airlift can respond most quickly, but it is costly and very limited in the volume of tonnage it can transport. Sealift is slow, but it can deliver large volumes of tonnage; further, sealift is generally much cheaper than airlift. Prepositioning--storing combat equipment overseas in warehouses or ships--usually commits materiel to a certain geographic area, and its costs may be high. Housing in buildings or storage ships must be available, and duplicate sets of equipment must be bought for the troops scheduled for deployment.

Though the total current mobility capacity of the United States is substantial, it would be limited during the early weeks of any RDF deployment. Figure 4 gives an indication of the total tonnage that could be

---

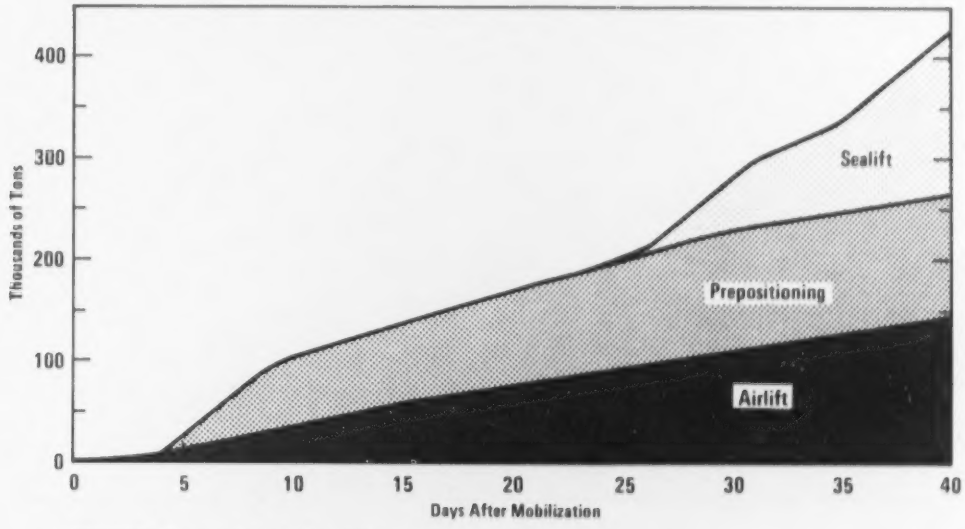
2. Thirty days is the goal reported publicly in the fiscal year 1982 Defense Report. A general goal of four to six weeks was stated in last year's defense report. The Administration has now relaxed that requirement to six weeks in the fiscal year 1984 Defense Report. See U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1982, p. 198; U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1983, p. III-92; see also U.S. Department of Defense, Annual Report to Congress, Fiscal Year 1984, p. 209.

3. The United States has pursued the practice of prepositioning materiel abroad since 1961. Under this program--called POMCUS, for Prepositioned Materiel Configured to Unit Sets--equipment primarily for Army and Marine Corps units is located in potential areas of conflict. Should war occur, forces would be flown from the United States to POMCUS sites, where they would draw their equipment. This allows the deployment of forces by aircraft in a relatively short period of time as opposed to deployment by sea in a much longer period. For a discussion of the NATO prepositioning program and the effect of prepositioning combat equipment on the NATO force balance, see Congressional Budget Office, Strengthening NATO: POMCUS and Other Approaches (February 1979).

delivered to Southwest Asia using present-day airlift, sealift, and prepositioned assets. With these assets and no more, to deploy the unit equipment of the current RDF to Southwest Asia would take nearly 40 days. Sealift would make no appreciable contribution until the end of the first month. Thus, only a portion of all unit equipment tonnage required for the current RDF could be deployed to Southwest Asia during the first 30 days.

Figure 4.

Total Current Mobility Capacity for the RDF Over Time



SOURCE: Congressional Budget Office.

Airlift

In the event of an RDF deployment, the first units would be delivered by military transport aircraft. The United States currently operates a large fleet of such aircraft, including 70 of the very large C-5 transports and 234 of the smaller C-141Bs. These can be supplemented by more than 350 commercial transports requisitioned under the Civilian Reserve Air

BEST AVAILABLE COPY

Fleet (CRAF) program. 4/ The aircraft now available to provide the immediate intertheater airlift for any deployment include:

Military Aircraft (Primary Aircraft Authorized)	
C-5 Transports	70
C-141B	234
Subtotal	304
Civilian Aircraft	
Boeing-747 Equivalents (Cargo)	49
Boeing-707 Equivalents (Cargo)	78
Boeing-747 Equivalents (Passenger)	143
Boeing-707 Equivalents (Passenger)	97
Subtotal	367

This represents the current number of civilian aircraft available to the government under the CRAF program if there is full mobilization. Without full mobilization, the number of CRAF aircraft available is significantly less.

Airlift Improvements. The mobility assets available to the current RDF would be insufficient to deploy all required equipment according to the arrival schedule set. To meet this shortfall, the Administration has proposed a twofold program to improve rapid deployment capability. Part of the program would increase the usefulness of airlift aircraft now available: the usage rate of the C-141 would be increased from its present ten hours a day to 12.5 hours a day, and the rate of C-5s from six hours a day to the same 12.5 hours. 5/ The other aspect of the program would greatly augment the number of transport aircraft available.

The Administration plans, over the coming five years, to procure more than 100 new airlift planes--56 KC-10 aircraft and 50 C-5s. Though

---

4. The CRAF program is a government-funded effort to modify commercial widebody passenger planes by equipping them with cargo-carrying features such as stronger flooring and wider doors. The aircraft would be operated by the airlines as passenger aircraft until mobilized, at which time they would be stripped of their civilian passenger features and used to transport military cargo.

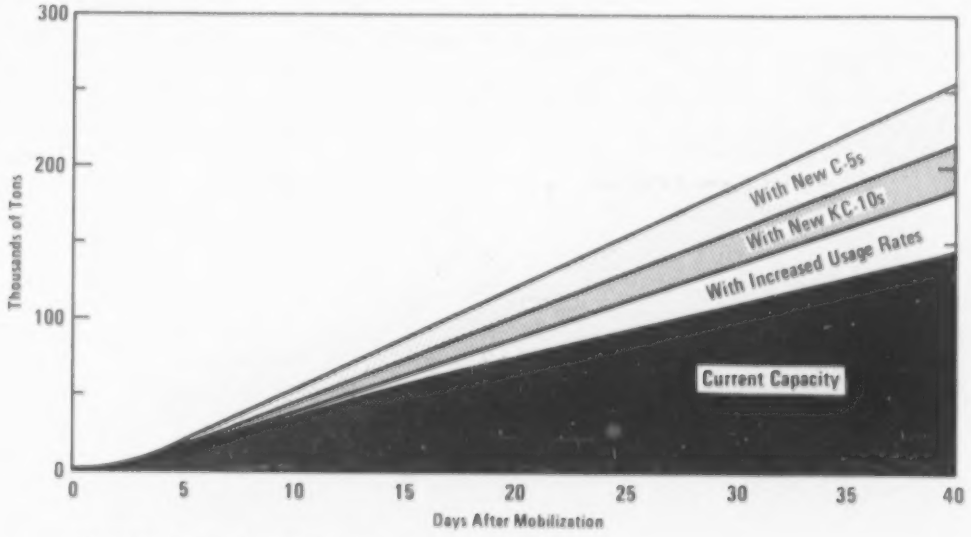
5. Usage rates represent the average flying hours per day per aircraft available to support a deployment.

the KC-10 is being purchased primarily as a tanker aircraft to serve for in-flight refueling, it can also transport cargo. Thus it was proposed for an interim airlift mission, because it could be procured quickly and would be particularly helpful in transporting tactical fighter squadrons in the early days of deployment.

When usage rates are increased, and the new KC-10 and C-5 aircraft are available, airlift capability will increase by approximately 70 percent during the first 30 days after a mobilization. The tonnage that will be transportable will increase from 110,000 tons to 187,000 tons (see Figure 5). Altogether, this package will cost approximately $11.7 billion in budget authority.

Figure 5.

Total Projected Airlift Capacity for the RDF Over Time



SOURCE: Congressional Budget Office

Despite this increase, the program would not fully meet the minimum airlift requirements specified by the Administration. The current fleet of transport aircraft has an airlift capability equivalent to 32 million ton

BEST AVAILABLE COPY

miles (MTM) per day. 6/ The proposed additions would add less than 14 MTM per day to this capacity. On the other hand, the Administration has indicated that a minimum of 20 MTM per day should be added to the current airlift capability. 7/ Meeting the Administration's stated objective would require a 40 percent increase in the number of aircraft the Administration now plans to procure. Some of this added capacity may be provided by programs that have been proposed; but these are not sufficiently well defined to allow CBO to quantify their effects. For example, greater capability might be achieved by increasing the number of cargo aircraft available in the CRAF program. The Administration has proposed $147 million for this program in fiscal year 1984, but the composition of the program has not yet been determined. Though the Administration wishes to pursue increased use of requisitioned civilian aircraft in the future, no such increases are assumed in this study. The Administration proposed no CRAF funds in the fiscal year 1983 budget, and the $48 million appropriated for CRAF in fiscal year 1982 was not obligated. It is therefore difficult to determine what added capacity increases in CRAF would provide.

Similarly, the Administration is continuing the development of the C-17 advanced cargo transport, for procurement later in this decade. The C-17 emerged as the successful design in the CX competition, which was launched in the late 1970s. The Reagan Administration in 1982 chose the updated C-5 over the C-17 to provide near-term airlift capacity. But the Department of Defense continues to believe the C-17 is needed for the future and has programmed $2.9 billion for development and procurement over the next five years, with a goal of buying six in 1987 and 12 in 1988.

Despite Administration plans, the future of the C-17 is unclear. The Congress appropriated $60 million in 1983 for continued development of the C-17, but it directed that all but $1 million of that amount be taken from other, lower-priority Air Force programs. If the Congress wishes to buy more airlift resources than are currently planned, it must judge the relative merits of procuring C-17s over additional buys of existing aircraft.

---

6. Million ton miles is a measure of airlift capability. It is computed on the basis of the number of aircraft available, their speed, the average load carried, and the usage rates. The 32 MTM is based on deployments to Southwest Asia. It represents the maximum that can be delivered, not the sustained or average capability.

7. See U.S. Department of Defense, Congressionally Mandated Mobility Study (30 April 1981), vol 1, Summary, pp. 34, 40.

Because to date the Congress has been unclear in its endorsement of continued development of the C-17, and because of the absence of explicit program details from the Administration on its plans for the total buy of C-17s, this study does not examine the program in detail.

Sealift

Before 1979 and the establishment of the RDF, many people viewed sealift as a mobility asset the primary value of which was in the reinforcing mission for a NATO contingency. The availability of more than 400 civilian NATO cargo ships was taken for granted, and the dwindling size of the readily available U.S. merchant fleet was of little concern. Certainly, sealift was not considered a rapid deployment asset. The availability of sites for prepositioned equipment under the POMCUS program, however, as well as demonstrated host-nation support, greatly reduced the perceived need for sealift in the early days of a NATO deployment.

Creation of the RDF and the focus on Southwest Asia changed this situation. Airlift could only meet a small fraction of the lift requirement, and there are no significant land-based prepositioning sites in the region; nor are there host-nation support agreements to facilitate mobility. Thus, the sealift has taken on a new importance. No longer seen as merely for reinforcement, sealift came to be viewed as part of the total rapid mobility capacity.

The more than 400 ships available for an RDF contingency could come from four sources, listed below in order of potential speed of response:

- Military Sealift Command (MSC) Controlled Fleet--37 ships each with an average capacity of 4,000 tons immediately available to U.S. Navy Military Sealift Command. These ships are either owned by MSC or under long-term charter to MSC. They are manned by civilian crews. In peacetime, they are part of a government fleet that carries military cargo throughout the world. They would be available for any military contingency.

- Ready Reserve Fleet (RRF)--29 ships each with an average capacity of 4,500 tons in a fleet jointly administered by the MSC and the U.S. Maritime Administration. Vessels in this category are kept in a "reduced operating status" and would require five to ten days' preparation to be ready for contingency use.

- o U.S. Merchant Marine--the 216 commercial U.S.-flag ships each with an average capacity of 5,000 tons in this category constitute the largest single source of strategic sealift. Availability of merchant marine ships falls into two categories. The Sealift Readiness Program (SRP) comprises those ships that have received government construction or operating subsidies or are under contract to carry government cargo in peacetime. If no national emergency or mobilization has been declared, SRP ships may be made available by joint agreement of the Secretaries of Defense and Transportation. Under provisions of the Merchant Marine Act of 1936, the Secretary of Transportation may requisition or purchase any U.S. flagship whenever the President declares a national emergency or deems that national security makes requisitioning advisable.

- o National Defense Reserve Fleet--a fleet of 141 World War II Victory-class ships, each with an average capacity of 2,800 tons. These vessels would require two or three months of preparation before they could be used, and therefore could only be used in sustaining a protracted war.

Programmed Improvements. The sealift improvements now planned will greatly increase the United States' early-deploying sealift capability. In 1981, the Navy purchased six high-speed container ships for $210 million and in 1982, for another $68 million, purchased the remaining two ships in this class. These ships, designated SL-7s for military use, have a maximum speed of 33 knots and can sustain an average speed of 26 to 28 knots. In fiscal year 1982, the Congress appropriated more than $300 million to convert four of these container ships to a roll-on/roll-off configuration for greater military utility. 8/ The Navy has requested an additional $252 million to convert the remaining four ships. When the conversion is completed, the ships will be assigned to the MSC-controlled fleet and kept in a reduced operating status that will allow them to be fully loaded and ready to deploy within five days of an alert.

These eight converted ships will be able to carry the combat and sustaining support equipment for one heavy Army division (approximately 88,000 tons). Fully loaded, each would be able to traverse the distance

---

8. The adaptation of these SL-7 container ships entails such modifications as removing the shell guides that accommodate containers, strengthening decks to support tanks, and providing a stern ramp and side ports to allow offload through both the stern and side.

between the East Coast of the United States and the Persian Gulf in 19 days' sailing time. This would allow sealift to complement airlift during the early deployment stage. (This assumes that the Suez Canal would not be available for use. If the canal were passable, however, the ships could arrive in the Persian Gulf up to eight days sooner.)

Though no funds are programmed for additional fast sealift, the Defense Department is reviewing plans for increasing the size of the RRF by upgrading the operational availability of ships currently in the NDRF and procuring used merchant ships that are still seaworthy but no longer economical as commercial freighters. The plan is to have a total of 61 cargo ships in the RRF by the end of fiscal year 1988. Though this would make more ships available early for the RDF, the relatively slow average speed (18 knots) and limited load capacity (4,500 short tons) of these particular ships suit them better to sustainment than rapid reinforcement.

Prepositioning

Though untested in conflict, prepositioning combat equipment under the POMCUS program has been an integral part of the NATO war plan for a long time. Prepositioning would speed deployment of combat forces, because much of the combat equipment is already in place and only the people and residual equipment would require airlift from the United States. Land-based prepositioning requires the full support of a host country, as they must supply the land and to a large degree, the security and maintenance for the equipment. Though several countries in Southwest Asia acknowledge the RDF's importance to their stability only Egypt and Oman have so far been forthcoming in offering sites for the United States to preposition unit equipment. 9/ The few (albeit important) offers that most Gulf states have made have been limited to allowing facility improvements and selective storage of noncombat equipment. As a result, other methods of prepositioning were developed. Prepositioning equipment and supplies aboard ships and stationing them in the Indian Ocean became the quickest way for the United States to demonstrate a commitment to security in the region and to send a clear signal of U.S. resolve. As early as the Kennedy Administration, consideration was given to prepositioning unit equipment aboard ships for use in military contingencies in parts of the world to which the United States did not have ready access. Nothing

---

9. Prepositioning, in addition to economic effects on the host nation, also has a significant political price, especially in the Third World. A large stockpile of combat equipment owned by the United States can jeopardize a host country's credibility as nonaligned with either NATO or the Warsaw Pact.

progressed beyond the planning stage until 1980, after the idea an of RDF was formulated.

Prepositioning ships are not assault ships but are floating warehouses that enhance strategic mobility in a particular combat theater by providing a stockpile of combat and support equipment for immediate use by arriving forces. They serve as a complement to amphibious ships, which have been the mainstay of the Marine Corps for years. 10/ Prepositioning at sea offers greater flexibility than land-based prepositioning: as the need arises, a ship can be moved from one contingency area to another. At the same time, though, sea-based prepositioning has certain disadvantages. A combat-free environment is required for unloading, and both the current fleet and the planned expansions require improved port facilities. At present, 17 chartered merchant ships to support the RDF are prepositioned near the Indian Ocean island base of Diego Garcia, and one is prepositioned in the Mediterranean. Six of these ships carry the combat and support equipment for one Marine Amphibious Brigade 11/; five carry ammunition and supplies for Army and Air Force components of the RDF; one ship houses two 400-bed Army field hospitals and one 200-bed combat support hospital for use by the Marine Corps. With the exception of the Marine Corps brigade's equipment, no combat materiel is now prepositioned at sea. The 18-ship Near-Term Prepositioned Force (this fleet's current name) contains, in addition to its freighters, five tankers with fuel and fresh water. Being merchant ships, all are manned by civilians, and except for short periods when equipment requires maintenance, most remain on station year round near Diego Garcia. 12/ The operations and support costs for the fleet in 1982 was $137 million.

---

10. The Marine Corps is expanding their amphibious fleet over the next five years at considerable cost. Appendix B discusses the amphibious ship program and the five-year costs to execute the program.

11. The Marine Corps brigade, based at 29 Palms, California, would be flown to the Persian Gulf to link up with its equipment once the RDF was deployed. Supplies aboard the ships could sustain the brigade for 30 days. See "Prepositioned Gear in Mideast to Triple," The Army Times, June 28, 1982.

12. Though maintenance on the ships can generally be done on station, maintenance of equipment and ammunition cannot. Therefore, the ships must sail for the Philippines once every six to nine months for maintenance. Initial maintenance inspections have indicated that storage at sea had little or no adverse effect on the equipment. As a result, the interval between maintenance was extended.

Prepositioning Improvements. Though the Army and the Air Force have no immediate plan to increase their land- and sea-based prepositioning appreciably, the Marines intend to triple the size of their prepositioned force by 1987 at a total five-year cost of approximately $1.6 billion. 13/ Under the Maritime Prepositioning Ship (MPS) program, the Marine Corps plans to preposition on ships the equipment for three Marine Amphibious Brigades (roughly a division-sized contingent), plus supplies for 30 days of combat.

To support this concept, the Navy has contracted with commercial shippers to provide 13 vessels uniquely configured for prepositioning use. The equipment, ammunition, and supplies to support each Marine Amphibious Brigade for 30 days will be stored aboard these ships. All maintenance of equipment and supplies prepositioned aboard ship can be completed while the ship is on station, and for unloading and loading, the ships will be fitted to operate independent of port facilities.

Rather than procure these ships directly, the Navy decided to charter them. In the judgment of Navy officials, the long-term costs to charter the ships will be less than purchasing them, while chartering stock from private owners avoids use of procurement funds. Furthermore, they believe that chartering existing ships would speed availability. The first four are to be available in fiscal year 1984, and the second set of eight in fiscal year 1985. The program will be completed when a thirteenth ship is delivered in fiscal year 1986.

MOBILITY FOR THE RDF

How adequate the proposed mobility enhancement program would be to meet the needs of an RDF is clearly a function of what size RDF is chosen. Any increase in the size of the RDF would require an increase in strategic lift capabilities to meet a constant set of deployment criteria. For the purpose of this analysis, the principal criterion is the time--30 days--needed tc deliver a full complement of RDF unit equipment to Southwest Asia. (Table 4 summarizes the mobility requirements and the costs of achieving a 30-day deployment criterion for each force level.)

---

13. This cost is only the five-year leasing cost of the prepositioned ships and does not include the cost to procure and maintain Marine Corps equipment aboard them.

TABLE 4. PROJECTED CHANGES TO MOBILITY PROGRAM FOR THREE RDF FORCE LEVELS

	Larger RDF	Current RDF	Smaller RDF
Increases (+) and Decreases(-) in Numbers of Assets			
Aircraft	0	0	-18 C-17 -48 C-5
Fast Cargo Ships	+8 SL-7-Class Ships	0	0
Prepositioning Ships and Combat Equipment	+10 Prepositioning Ships, +1 Division Set of Equipment	0	0
Cost Increases (+) and Decreases(-) in Costs (Billions of 1984 dollars)			
1984	+0.5	0	-1.4
1985	+1.2	0	-2.3
1986	+1.3	0	-2.6
1987	+1.4	0	-3.0
1988	+1.4	0	-1.7
Total	5.8	0	-11.0

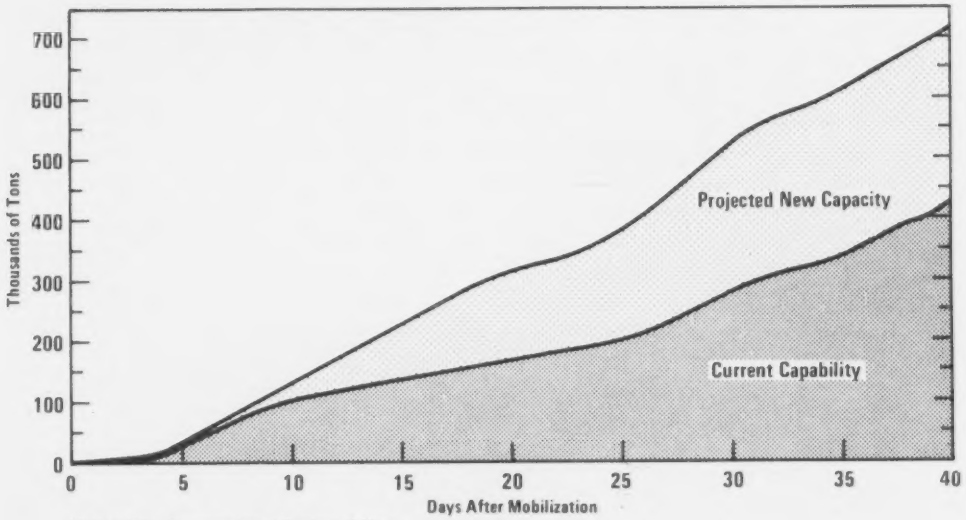
SOURCE: Congressional Budget Office.

The Larger RDF

A decision to establish the larger RDF of 440,000 would increase the lift requirement for full deployment of the unit equipment from approximately 396,000 tons to nearly 737,000 tons--an increase of 86 percent. Mobility improvements proposed by the Administration appear insufficient to satisfy this study's time criterion for so large a force. Figure 6 illustrates the improvements this program would achieve as measured by the total tonnage that could be delivered to Southwest Asia within 30 days.

Figure 6.

Projected Total Mobility Capacity for the RDF, Including Planned Upgrades and Expansions



SOURCE: Congressional Budget Office.

Today's mobility resources, together with the programmed adaptations and expansions, could deliver the unit equipment of the larger RDF to Southwest Asia in approximately 42 days. To speed full deployment to 30 days, sealift would be needed. An additional ten prepositioning ships would be required for equipment for one fully supported Army division; materiel for the remaining units could be conveyed on fast logistic ships. As many as eight new fast roll-on/roll-off ships (SL-7s) would also be required. The costs of obtaining these mobility assets would equal approximately $5.8 billion in budget authority (see Table 4).

Though additional airlift could be considered in lieu of additional prepositioning or sealift, costs would likely prove prohibitive. A full 210 C-5 transport aircraft, which could cost as much as $35 billion over five years, would be required to provide a capability equivalent to that offered by the additional prepositiong ships. To match the additional sealift's capability would require nearly 160 C-5s, for a total of approximately $27 billion. Thus, a total fleet of nearly 370 new C-5s would be needed to supplant sealift and prepositioning with airlift. Such an air fleet could cost as much as $62 billion to procure, in addition to sizable operating costs.

Higher mobility costs could of course be avoided if planners opted to relax the 30-day criterion assumed in this study. They might argue, for

example, that the entire larger RDF need not be deployed so quickly as the current RDF. Roughly half of the Administrations RDF--the equivalent of the current RDF--could be deployed in 30 days, with the remainder to follow later.

Higher costs could also be avoided by deploying the RDF early. Instead of responding to an actual outbreak of hostilities in Southwest Asia, the RDF could be mobilized in response to advance signals of a possible outbreak of combat. Sealift forces would carry out the first phase of such an RDF mobilization, with deployment of SL-7 ships loaded with ground combat forces and equipment. If deployed early, no added costs would be needed to transport the unit equipment of the larger RDF within 30 days. Opponents of this approach would point to the likely ambiguity of signals that could delay such an early RDF deployment.

The Current RDF

The Navy and Air Force mobility improvements the Administration has planned will have a marked effect on the ability of the United States to project forces quickly. Though today, only 70 percent of the unit equipment for the current RDF can be deployed to Southwest Asia within 30 days, upon completion of the Administration's mobility program, the entire force will be rapidly deployable within a month. 14/ In fact, to deploy half of the force would take just two weeks, representing a 100 percent increase in mobility for the earliest-deploying forces. This study therefore finds that there would be no added five-year costs beyond those already included in the Administration program to provide speedy delivery of the current RDF.

Implications for NATO, however, could be appreciable. To deploy the current RDF in 30 days' time, all rapid airlift and sealift must be dedicated to the RDF. The programmed lift improvements provide no excess capacity to allow the United States to operate simultaneously in contingencies in Europe and elsewhere. If airlift or fast sealift were withheld or diverted from the RDF, the Administration's program would fall short of meeting the 30-day-deployment criterion. Though the mobility costs of serving the RDF and NATO simultaneously would be prohibitive, this need not be a major drawback. By their very nature, airlift assets can shuttle

---

14. It should be noted, however, that when the 30-day ammunition and resupply requirement estimated by the Department of Defense is integrated into the deployment, then it may require as much as 45 days to deploy the current RDF.

between two theaters with reasonable speed; thus simultaneous lift capability may be less important than simultaneous combat strength.

The Smaller RDF

Current mobility resources, without the Administration's planned mobility enhancements, would suffice to allow full deployment of the smaller RDF to Southwest Asia within a 30-day span. The Administration's mobility program would reduce the deployment time for this force to 14 days or less. The airlift and prepositioning programs would contribute most to this shortened reaction time.

Accordingly, mobility costs could be markedly reduced. If the RDF were scaled down to the 165,000-man level, scaling back investments in mobility enhancement might also be possible. For example, the Congress could terminate the C-17 aircraft program while it is still in the development phase, saving approximately $2.9 billion over a five-year period. Terminating further purchase of C-5 transport aircraft could also be considered, saving an additional $8.9 billion.

Though less capacity may be sufficient for the smaller RDF, the Adminstration's mobility program has a key role in other U.S. defense planning. The Department of Defense believes that its mobility initiatives are necessary for meeting deployment goals in other contingencies, particularly NATO. Indeed, the Congressionally Mandated Mobility Study submitted in 1981 identified substantial shortfalls in the ability to deploy to NATO. These would still only be partially met if all the Administration's mobility enhancement programs--including purchase of the C-5 aircraft--were carried out. Thus, the Congress would have to judge whether the RDF or NATO--or both--should be the determining factor in setting U.S. mobility requirements.

CHAPTER V. SUPPORT NEEDS OF THE RDF

A conventional force's success in a military engagement can depend as heavily on support as it does on combat strength. In past encounters, U.S. support personnel--the people who carry out supply, transport, medical, communication, maintenance, and repair services--have proven as critical as combatants. Nonetheless, the support needs of the Rapid Deployment Forces have thus far drawn less public attention.

ARMY SUPPORT REQUIREMENTS

Support needs vary greatly with the nature of the theater in which combat is conducted. The U.S. military distinguishes between "mature" and "immature" theaters. Western Europe, the site of a possible Warsaw Pact/NATO confrontation, is an example of a mature theater that offers an extensive logistical support base. The support assets of Europe include its complex and solid rail and road networks, sophisticated medical services, established national fuel distribution system, and an industrial base capable of furnishing some wartime support for all Allied forces.

RDF Needs

Southwest Asia stands in sharp contrast. In most parts of the region, the RDF would find an immature theater with primitive and scant roads and railways, no established fuel distribution system, little in the way of medical service, and nonindustrial economies unsuited for offering any support to a war effort. As basic a deficiency as potable water in many areas would require the RDF to establish an elaborate water treatment and distribution system.

The lack of support infrastructure in Southwest Asia could lead to an unprecedentedly large demand for support forces relative to combat forces for the RDF. Though the Administration has proposed more than $1 billion for military construction to support the RDF, little of this sum is to go toward developing logistical infrastructure. (For further discussion of the Military Construction Program to support the RDF, see Appendix C.)

The support the RDF would require would take many forms. Some would be unique to a service, and in an RDF deployment, each service

would be responsible for providing certain of its own support. For example, the Air Force support package to accompany the tactical aircraft units would include maintenance units to service aircraft, engineer units to build and maintain runways and other facilities, medical units with service facilities, and air police to provide air base security. The logistics and support units would, in effect, provide for the base support operations necessary to keep the tactical units flying. Similarly, the Marine Corps would provide maintenance, transport, and medical support for its combat forces within the immediate operational area of the amphibious force (this area is usually limited to a 50-kilometer zone extending from a beachhead). The Air Force and Marine Corps already appear to have adequate resources to meet their unique support needs regardless of where their combat forces were deployed.

The role of Army support forces in Southwest Asia could be larger and more complex than that of any other service. At the RDF commander's decision, the Army would take responsibility for establishing and maintaining the logistical support structure for the RDF in the entire region; this responsibility would be in addition to the Army's particular support needs of its own combat units. Area-wide support would include distribution of ammunition, petroleum, and resupply, road construction and maintenance, convoy security, and theater-wide communication. Because of the larger support role, the analysis in this chapter concentrates on the Army.

An accurate measure of support requirements in the Southwest Asia theater is the number of people actually needed for a particular combat force. The support requirements for each of the three RDF force options are presented in Table 5. Support requirements range from 20,000 for the smaller RDF of 165,000 troops to 124,000 for the Administration's larger version. Engineer, transport, supply, and maintenance units account for the largest percentage of the total number of required support personnel. Engineer units would build and repair roads throughout the theater; transportation units would carry ammunition, fuel, water, spare parts, and many other items that need constant replenishment. The rest of these support requirements--all part of the "theater logistics structure"--would be made up primarily of medical and communication support, and chemical decontamination support in the event RDF units encounter chemical attack. (Estimated Army requirements derive from computer models, using consumption factors for ammunition, fuel, food, and other consumable items. The accuracy of these requirement estimates is of course difficult to verify.)

TABLE 5. ARMY SUPPORT PERSONNEL REQUIREMENTS, CAPABILITIES, AND SHORTFALLS FOR THREE RDFs

	RDF of 440,000	RDF of 222,000	RDF 165,000
Current Capability			
Active Army	33,000	22,000	6,600
Reserve and National Guard	40,000	27,000	8,000
Subtotal	73,000	49,000	14,600
Shortfall			
Active Army	23,000	22,000	2,400
Reserve and National Guard	28,000	27,000	3,000
Subtotal	51,000	49,000	5,400
Total Requirement	124,000	98,000	20,000

SOURCES: The support requirements for the larger and current RDF were derived by CBO from Army data reflecting Southwest Asia force requirements for two RDF force levels. The Army establishes its support requirements based on official operational plans that may not include the full reservoir of forces in the RDF. The support requirement for the smaller RDF was estimated using the generic tactical support increment for one airborne division.

THE SUPPORT PERSONNEL AVAILABLE TO THE RDF TODAY

Because the Army does not generally make public a detailed plan for meeting its support requirements, the CBO has derived a generic plan based on several key assumptions.

Key Assumptions

The most important assumption in the CBO analysis concerns support for NATO. About 350,000 total active-duty and reserve Army personnel are assumed available to provide support--more than enough to support even the larger RDF. 1/ Many of these, however, are assigned to units that are not earmarked for the RDF but rather are committed to the defense of NATO. Others belong to Army Reserve and National Guard forces and are not ready for rapid deployment.

Since the RDF would most likely be deployed in a crisis situation in which a NATO conflict could be quite possible, the analysis assumes that the United States would not plan to draw disproportionately on support for forces committed to NATO. 2/ Rather, the analysis assumes that, as combat forces are mobilized in an RDF action, a proportional share of support forces would be available. This assumption ensures that units not designated for the RDF can operate without reduction in support capability. The implications of this key assumption are discussed again below in connection with meeting the costs of shortfalls in support.

The availability of Reserve and National Guard personnel for RDF support is another key assumption. In the event of a NATO war, these personnel would mobilize and provide about 55 percent of all support for the active Army combat divisions. It seems reasonable to assume that the reserves could provide the RDF with this same level of support, even

---

1. The total tactical support currently available within the Army consists of 106,000 active-duty supporters (30 percent), 105,000 National Guard supporters (30 percent), and 140,000 Reserve supporters (40 percent).

2. The Office of the Secretary of Defense does not make this assumption in assessing support capabilities for the RDF. The Department of Defense's current plan is to draw support from NATO-oriented combat forces, while encouraging the NATO allies to do more than is currently agreed to in the way of host-nation support. On 15 April 1982, the United States and the Federal Republic of Germany concluded an agreement whereby the West Germans intend to train and equip some 93,000 reservists, who would provide wartime support to U.S. forces in the areas of transport, supply, airfield repair, logistics, and security of U.S. Army facilities. This accord was negotiated over several years and is not a direct response to a U.S. commitment of the RDF to Southwest Asia or elsewhere.

though no detailed plans are publicly available from the Army. This assumption would require call-up of no more than 100,000 reservists; this the President is authorized to do for any 90-day period without Congressional approval.

Finally, the analysis rests on certain assumptions about the available support from host nations--that is, those countries that would provide access to land and facilities for U.S. forces during a conflict. In NATO, host nations would supply some of the support. For example, in time of war, civilian truckers would do much of the hauling in West Germany. In Southwest Asia, though, the United States does not have the comparable agreements with host nations; such agreements are slow to negotiate and in some instances, politically not feasible. Thus, this study assumes that the RDF would receive no host-nation support; planners would rely on U.S. support only for all U.S. combatants.

These assumptions imply that 49,000 persons are available to provide support to the current RDF without any adverse effects on support for non-RDF forces (see Table 5). The larger RDF, with more combat forces assigned, would have 73,000 persons, while the smaller RDF would have 14,600. By assumption, 55 percent of the total available personnel are in the Army Reserve and National Guard, while 45 percent are on active duty.

SHORTFALLS IN SUPPORT AND COSTS OF MEETING THEM

The comparison of required support personnel to the numbers actually available suggests that the Army is quite short of personnel to support the current version of the RDF and still shorter for the Administration's larger RDF (see Table 5). The shortfall for the smaller version of the RDF is only 5,400, however. As the above discussion implies, these shortfalls emerge in the analysis primarily because the areas where the RDF is likely to deploy have little usable infrastructure already in place, and because the Army provides support in the entire region. Today's Army does not have the support resources to meet these heavy demands without drawing on NATO-oriented forces. The remainder of this chapter examines the details of shortfalls for each version of the RDF and analyzes the costs to meet them.

Larger RDF

A shortfall of 51,000 Army support personnel emerges for the larger RDF, divided roughly into a 23,000-person active-duty component and a 28,000 Reserve component. Since the current five-year program is to

provide only minor increases to reserve logistic forces, 28,000 Army Reserve and National Guard forces would have to be added. Though the Army plans to expand its active-duty force by 30,000 people over the next five years, the logistics force is to increase by only 6,000. 3/ (The difference will be able to man new Army equipment and ensure that existing combat units are filled.) Assuming most of these people would be available for the RDF, a requirement for 17,000 additional active-duty support personnel would remain. To support this force, then, would require 45,000 people (17,000 active-duty and 28,000 reserve) at a five-year program cost of approximately $1.3 billion (see Table 6). 4/ Cost estimates are based on the assumption that added personnel are phased in at a constant annual rate of 9,000 over five years. Costs include pay and allowances plus added expenses for recruit bonuses sufficient to enlarge the Army without lowering the quality of Army recruits.

If the United States chooses not to pay these additional costs, then support needs for the RDF could be met by drawing from the support available for units assigned to NATO. For the larger RDF, this would mean diverting the equivalent support for three active-duty divisions, or 30 percent of the remaining U.S. active divisions that would help defend NATO. If their support were withdrawn for the RDF, and if a simultaneous conflict in NATO erupted, then these three divisions would have little combat capability until their support forces were restored by the arrival of Reserve component support forces from the United States.

Current RDF

The shortage of support does not fluctuate in proportion to the size of the RDF itself. A 49,000 support shortfall for the current RDF consists of roughly 27,000 army reserves and 22,000 active-duty personnel. Interestingly, limiting the number of the RDF combat forces to this level causes the shortfall to decrease only by roughly 2,000 people, or 4 percent. This strikingly slight variation appears because, for an RDF above some threshold size, a nearly constant large number of people would be associated with establishing logistics support.

---

3. Hearings before the Committee on Armed Services, United States Senate, 97th Congress, Second Session on S. 2248 (February 10, 1982), p. 853.

4. Costs reflect only added support people and do not include the cost of additional support equipment that would also be necessary.

TABLE 6. PROJECTED RDF SUPPORT COST REQUIREMENTS BY SIZE OF RDF, 1984-1988

Year	Larger RDF	Current RDF	Smaller RDF
1984	0.1	0.1	0
1985	0.2	0.2	0
1986	0.3	0.2	0
1987	0.3	0.3	0
1988	0.4	0.4	0
Total	1.3	1.2	0
Unfilled Requirement	45,000 a/	43,000 b/	0

SOURCE: Congressional Budget Office.

a. In addition to the 45,000 supporters required, additional general support people would be required in the Army owing to the expanded end strength. These people would provide training support and base operations support. For the current RDF, this would be an additional 1,500 active-duty personnel. The costs include these extra people.

b. The additional training support and base operations support required for this increased end strength is 1,400 active-duty personnel. The costs include these extra people.

Most support requirements for the RDF would arise in the course of establishing the theater logistics network necessary to sustain this large a force over an extended time. As with the support-personnel shortfall, the cost and NATO effects would not differ markedly from those of the larger RDF. The added support cost of the current RDF would be about $1.2 billion (see Table 6)--enough to hire the 43,000 added personnel cited above. If support needs were met by drawing on forces assigned to NATO, the loss of NATO capability would be similar to that for the larger RDF.

Smaller RDF

For the smaller RDF, the support shortfall would come to 3,000 reserve support people and 2,400 active-duty troops. With the planned increase of 6,000 in the active-duty support force over the next five years, full support of the smaller RDF would be possible with no additional cost over the approximately $400 million now planned to add the 6,000 persons. The major reason is that so small a force presents no need to establish a large theater logistics network. Furthermore, the smaller RDF, being specially adapted to peacekeeping or stabilizing missions, would not be called upon to sustain combat over long periods or to confront the most demanding adversaries.

APPENDIXES

APPENDIX A. COSTING THE RAPID DEPLOYMENT FORCES

Calculations of the costs of Rapid Deployment Forces can vary widely depending upon what assumptions are made. In February 1982, Secretary of Defense Weinberger was reported in the press to have earmarked $4 billion in the fiscal year 1983 defense budget for the RDF. When pressed about this figure during Congressional testimony later in the year, Administration representatives supplied more detailed cost figures. In providing these figures, the Administration distinguished between costs directly related to the RDF and Southwest Asia and those indirectly associated with the RDF. These costs are summarized below:

DIRECT COSTS
(budget authority in millions fiscal year 1983 dollars)

Operations and maintenance	378
Aircraft procurement	0
Other procurement	25
Military pay	3
Military construction	331
Subtotal	737

INDIRECT COSTS
(budget authority in millions of fiscal year 1983 dollars)

Operations and maintenance	102
Aircraft procurement	108
Other procurement	528
Military pay	34
Military construction	146
Research and Development	111
Procurement weapons and tracked vehicles	138
Stock fund	23
Ship construction	623
Subtotal	1,813
Total--direct and indirect costs	2,550

SOURCE: Department of Defense.

Direct costs include such programs as operations and maintenance for the Near Term Prepositioned Force (NTPF), training exercises, water treatment equipment, and military personnel assigned to the RDF headquarters element only. Indirect costs are broader in scope and include such programs as the Army's Mobile Protected Gun, the SL-7 fast logistics ships, a hospital ship, and communication equipment. Absent, however, are the C-5 and KC-10 airlift programs that were so closely associated with RDF deployments during Congressional hearings in 1982. If the cost for these programs were included in the total direct and indirect costs of the RDF, the fiscal year 1983 budget authority figure would be approximately $4.1 billion.

This value does not, however, include any costs attributed to forces available to the RDF for deployment. Costs associated with operating, maintaining, and manning the Naval forces currently in the Indian Ocean are not reflected in these figures. Likewise, the Army divisions and Air Force wings under RDF command are not treated as part of RDF costs.

Some analysts would argue that the true costs of the RDF should include costs for those forces that are primarily oriented toward the RDF. This approach would include three and one-third Army divisions, seven Air Force tactical fighter wings, and the prepositioned Marine Corps brigades. This, however, may seriously overstate the true costs, as none of these forces were established explicity for the RDF, and in fact, all existed before the RDF was created. In addition, there is a widespread belief that, even if the RDF were to cease to exist, these forces would still be necessary for the NATO, Korea, or other missions.

A reasonable estimate of the RDF cost in fiscal year 1983 appears to be $4 billion. As the RDF increases in size, however, these costs can be expected to rise. Should additional combat forces be necessary to provide a reasonable degree of assurance that the United States can meet all of its defense commitments, then some forces dedicated to the RDF might, in fact, give rise to costs attributable to the RDF.

APPENDIX B. AMPHIBIOUS LIFT

Responsibility for the amphibious lift requirement for Rapid Deployment Forces is unique to the Marine Corps; they are to retain a capability for conducting combat assaults over enemy held beaches. As a result, sealift required to support this mission is unique. All amphibious ships must be capable of loading and transporting Marine Corps equipment in a combat configuration and discharging the equipment over beaches under combat conditions. In today's total inventory of 67 amphibious ships, there are nine major types. By the mid-1980s, some of the older LSD-28 landing ships will begin to reach the end of their expected service life. By 1990, eight of these ships will be retired from active service.

To offset this loss in amphibious lift capacity, the Administration has proposed building a new class of landing ships called the LSD-41. The Congress appropriated $417 million for these ships in fiscal year 1983. An additional $55 million was appropriated for long-lead procurement of a new helicopter assault ship, the LHD-1. This ship would be an addition to the current amphibious fleet, not a replacement for any retiring ships. The proposed five-year procurement profile for amphibious ships and the costs associated with the program are as follows:

PROPOSED AMPHIBIOUS LIFT PROGRAM
(Fiscal year 1984 budget authority
in billions of dollars)

	1984	1985	1986	1987	1988	Total
LSD-41						
Numbers of units	1	2	2	2	2	9
Costs	0.5	0.6	0.8	0.7	0.7	3.3
LHD-1						
Numbers of units	1	0	1	0	1	3
Costs	1.4	0.1	0.8	0.1	0.9	3.3

The real ability of the amphibious fleet is not solely reflected in the numbers of ships available. Rather, the most common measure of

amphibious lift capability is the percentage of a Marine Amphibious Force (MAF) that can be moved at one time. Lift capability is primarily constrained by cubic footage and helicopter spaces. Before 1981, the greatest constraint on amphibious lift was the number of helicopter spaces available. As a result, the lift was limited to the approximately 1.15 MAFs. The exact size of a MAF is not fixed, and as new doctrine or new equipment is incorporated, the lift requirements for the Marine Corps change. In 1981, the lift requirements established five years before were revised, reflecting a large increase in the number of helicopter spaces required to lift one MAF. When these new requirements became effective, the amphibious lift capability decreased to approximately 0.8 of a MAF. By 1990, when all of the new LSD-41s and LHD-1s now in the program come into inventory, the amphibious lift capability will be a little greater than 0.9 MAF.

The Marine Corps has proposed that the requirement for amphibious lift should be based on being able to lift the assault echelon of a MAF and a Marine Amphibious Brigade (MAB) simultaneously. Whether this is an achievable goal is open to question. Even if the currently proposed five-year funding for amphibious lift could be sustained for an additional five years, the loss of ships in the current inventory attributable to aging would not allow the total amphibious lift capability to rise above one MAF.

APPENDIX C. FACILITIES AND MILITARY CONSTRUCTION IN SOUTHWEST ASIA

For fiscal year 1983, the Department of Defense requested over $450 million for military construction to support Rapid Deployment Forces in Southwest Asia. This amount was part of an estimated $1.5 billion program designed mostly to upgrade existing facilities located in countries either in the Southwest Asia operating area or considered critical to deployment to the area (for example, Lajes Field in the Azores). A list of the military construction projects requested in fiscal year 1983 by the Department of Defense and the funds appropriated by the Congress is provided below. With the exception of the construction of Ras Banas, Egypt, the funds are being directed toward improving the airfields and port facilities (see also Figure 1 in Chapter II).

The effort at Ras Banas is the major exception. Plans for Ras Banas call for developing a forward staging area through which combat units would be able to deploy before actually being committed to combat. Located on the Red Sea, the facility, when completed, would be able to handle large transport ships such as the SL-7s and have airfield facilities capable of handling C-5 aircraft. The importance of Ras Banas at this time is largely a function of current politics in Southwest Asia. Although other countries, such as Oman, have agreed to allow the United States to upgrade some of their existing facilities and, in general, are supportive of stated U.S. intentions in the area, none have been forthcoming in offering a location where the RDF could deploy forces prior to the outbreak of hostilities. Though Ras Banas is still a long distance from the Persian Gulf, it is the only facility available to U.S. forces.

In general, the military construction costs in support of the RDF have been modest. This is attributed primarily to the fact that the United States does not maintain a large land-based presence in the area and, with the exception of the Marine Corps contingent afloat in the Indian Ocean, maintains no ground combat forces in Southwest Asia. As a result, there have been no expenditures for base facilities in the area, no major construction for land prepositioning of combat equipment, and no funds for developing a permanent logistics infrastructure to support area combat operations.

Site of Construction	Costs in millions of dollars
Ras Banas, Egypt	
Rear area staging facility	
Division cantonment area	
Supply storage	
C-5 airfield	
Port facility	91
Oman	
Seeb - airfield/facility improvements	
Masirah - airfield/facility improvements	
Thumrait - airfield/facility improvements	60
Mombassa, Kenya	
Base support facilities	
Harbor improvements	8
Berbera, Somalia	
Port/airfield facility expansion	30
Diego Garcia	
Airfield improvement	
Storage facilities	
Maintenance facility	
Wharf	58
Lajes, Azores	
Airfield improvement	0
Total	247

SOURCES: Military Construction Authorization Fiscal Year 1983, S. Report No. 97-440; and Military Construction Authorization Act, 1983, H.R. Report No. 97-525.